

Co-Designing with Communities

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The Ohio State University

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Erika Braun

Collective Design Initiative

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Sapna Singh

Collective Design Initiative

Community Engagement Conference

| The Ohio State University

| January 24, 2018

Aging

Autism

Diabetes

The Department of Design

MFA in Design Research and Development

AGING

Co-Design Studio 2015: Future Aging and Social Engagement

Co-Design Studio 2017: Future Aging and Social Engagement

MFA Thesis 2018: Adam Fromme

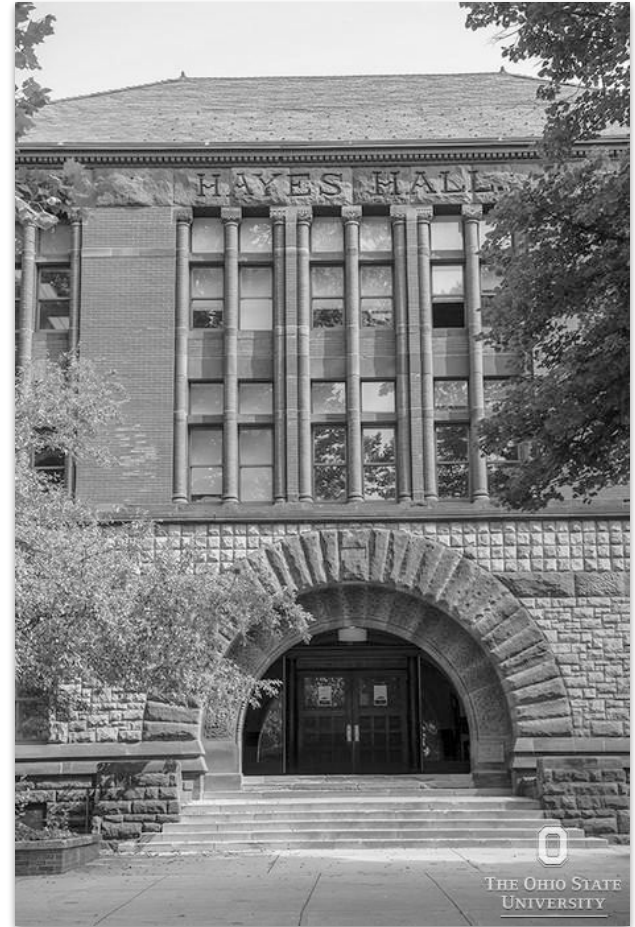
AUTISM

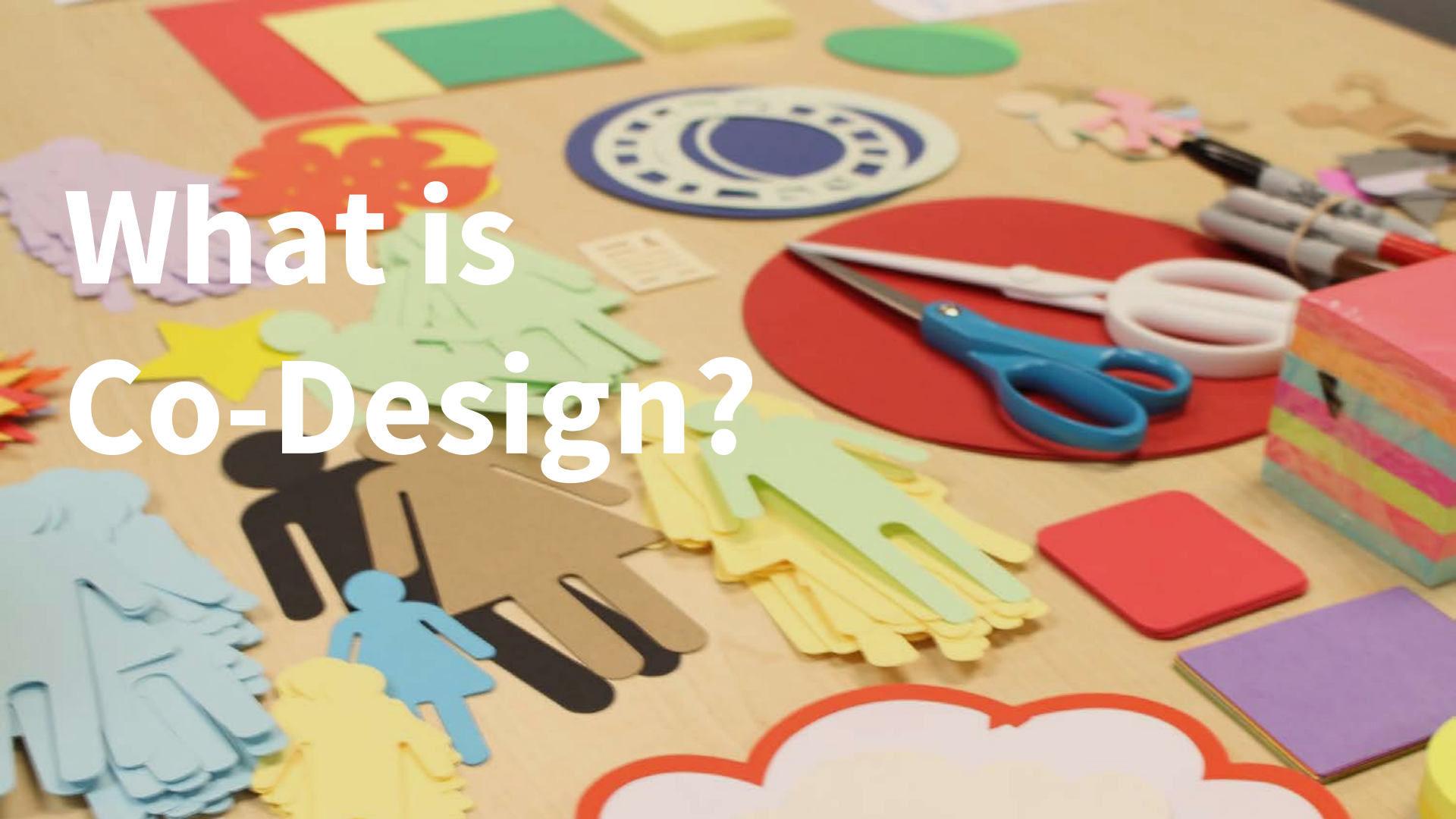
MFA Thesis 2016: Erika Braun

Grant 2017: Discovery and NCH Pilot Grant

DIABETES

Co-Design Studio 2016: Living with Type 2 Diabetes



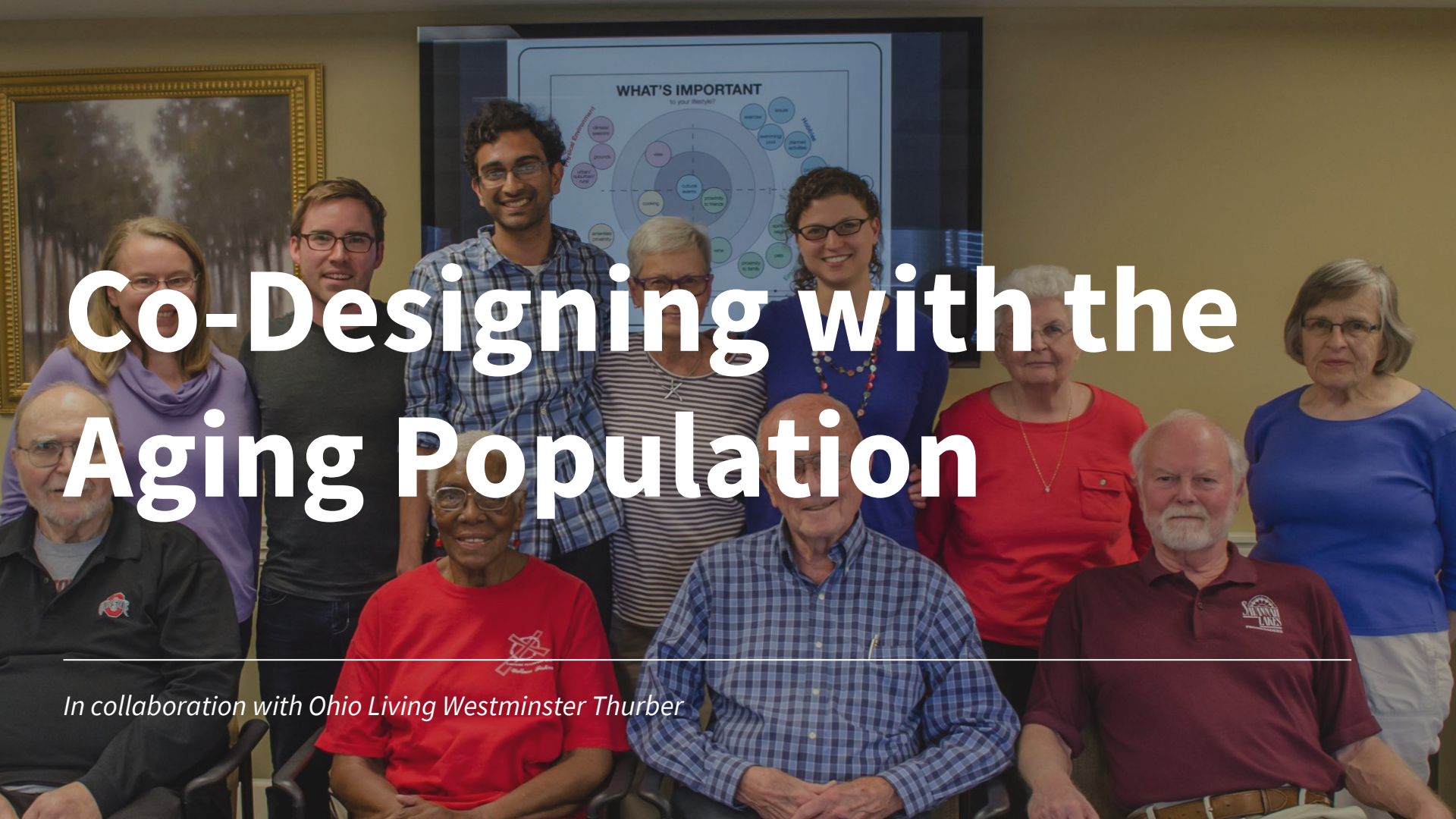


What is Co-Design?

What is Co-Design?

Co-design is an approach to design that actively involves all stakeholders in the design process to help ensure that the result meets their needs and is usable.

Also referred to as participatory design, at the heart of this understanding is the notion that we should therefore not be designing for people, but rather, designing with them.



Co-Designing with the Aging Population

In collaboration with Ohio Living Westminister Thurber

The Co-Design Studio: Co-Designing with the Aging Population

- Invite graduate students from all over OSU via a poster
- Bring in expert speakers from OSU and the community
- Students generate topics and form teams
- Students team up with co-designers around the chosen topics
- The co-designing teams explore, prototype and iterate
- The topics usually change
- The teams continue toward a design concept or solution
- The co-designers present together

Co-Design Studio 2015

The graduate students' disciplines:

- Arts Administration, Education and Policy
- Fisher College of Business
- Industrial and Systems Engineering
- Public Health
- Occupational Therapy
- Design



The Design Department invites graduate students from all disciplines to join us in exploring meaningful opportunities for future experience. We will focus on social engagement and community building by co-designing with older adults at Westminster-Thurber Community.

We are particularly interested in hearing from graduate students in:

Gerontology	Social work	Education
Nursing	Communications	Human ecology
Business	Computer science	City planning
Marketing	Engineering	
Psychology	Public health	

Format: Co-design studio

Participants: Graduate students from all disciplines are welcome. Class size is limited to 18, so please enroll early.

Facilitator: Liz Sanders, Ph.D., Department of Design

When & where: 105 Hayes Hall, Mondays from 3:00-7:00 pm. Classes will also be held at Westminster-Thurber Community.

Class number: Design 6400 D6400-0010 17541

Questions? Send me an email at Sanders.82@osu.edu

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If you are interested in learning more about the GIS (Graduate Interdisciplinary Specialization) in Aging, visit egg.osu.edu.

Co-Design Studio 2015: Future Aging and Social Engagement

.Shoe shopping: Finding the perfect fit

.Co-designing capes: Reciprocal generativity

.Deciding where to spend the rest of your life: A decision-making tool for seniors and their families.

Diary Entry #1:

What kind of work did you do before retiring?
What did you like about it?

As a nurse - new college grad
(Edinburg)
respected and
the teaching
with work
returned to
certificates
I finished
and looking
and the
projects
for
the

Diary Entry #2:

When you want/need to go somewhere, how
do you get there? What do you have to do to
arrange travel?

I take the wife bus, I have
my, Carri Marmoreau on call
found who drives. I have to plan
ahead to make sure travel
is available and

Diary Entry #3:

What is an activity that you used to enjoy
that you feel is limited by your current
circumstances? What is that limitation?

Vacation travel has been a
problem given my limitations in
walking. Currently I have a
cylinder.

Diary Entry #4:

Please describe a typical day in your life
(from morning to bedtime).

"Typical" isn't possible except in the
spaces of everyone's life.
My husband died 2 mos. ago & I
have only myself to take care
for the 1st time in 60 years, &
"typical" is changing.
I get up, shower, exercise
day, fix & eat breakfast, read
the paper, maybe do the crossword
puzzles, then my day is

Diary Entry #7:

What is your favorite thing to do these days?

Read and People Watch!

Q&A: (please circle and/or fill in the answer)

1. Do you have an email address we
can reach you with?

The Physical Mobility Team

Co-Design Studio 2015



Co-Design Studio 2015



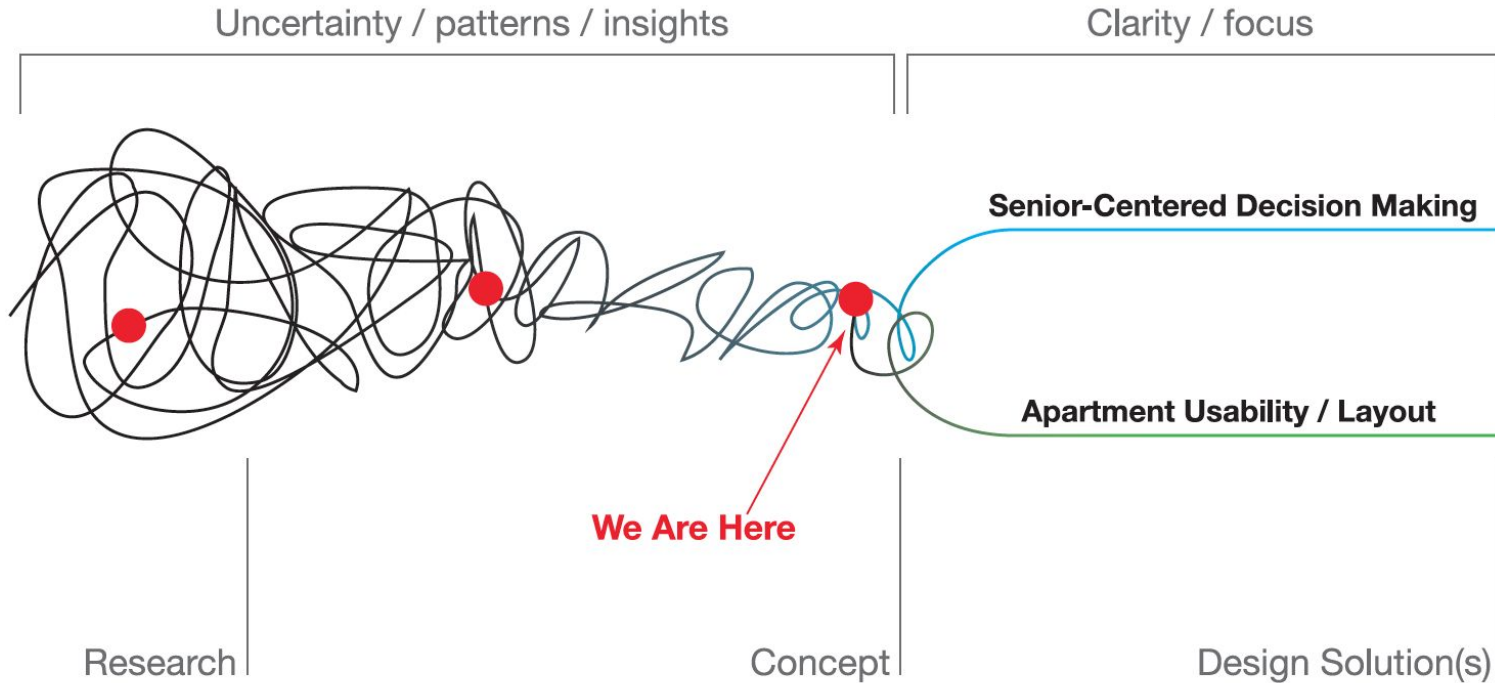
Co-Design Studio 2015



Co-Design Studio 2015



Co-Design Studio 2015



Co-Design Studio 2015

Ladies and Gentlemen, Boys and Girls, Children of all Ages!!!

Over the past couple of weeks while the Student Team was out playing, the Senior Team was slaving over our joint project! Just another example of how easily kids can get distracted from the primary task!! We had two meetings and a really heavy homework schedule! But extreme dedication and pure perseverance paid off and we made modest progress without our sister team!

At the last meeting (last Tuesday) I was elected (coerced) to write an introduction and assemble all our collective efforts up to now into a single Word document. Once I agreed to that they let me up and everyone left me with little other guidance. So I feel free to do or write whatever I please.

Here is what I have decided to do: I am going to briefly summarize our work over the past two work sessions, assemble the products of our effort just as they were forwarded to me, and share some other information I stumbled on to which you might want to fold into your equation somewhere. There probably will not be much surprise in what you are getting since I think most of what is here, except for these summary



Gretchen Alexander
Public Health Nurse



Don Jameson
Marketing



Gay Hadley
Human Resources



Mark Mathys
Telecommunication



Jinnie Willard
Homemaker



Anne LaPidus
Librarian



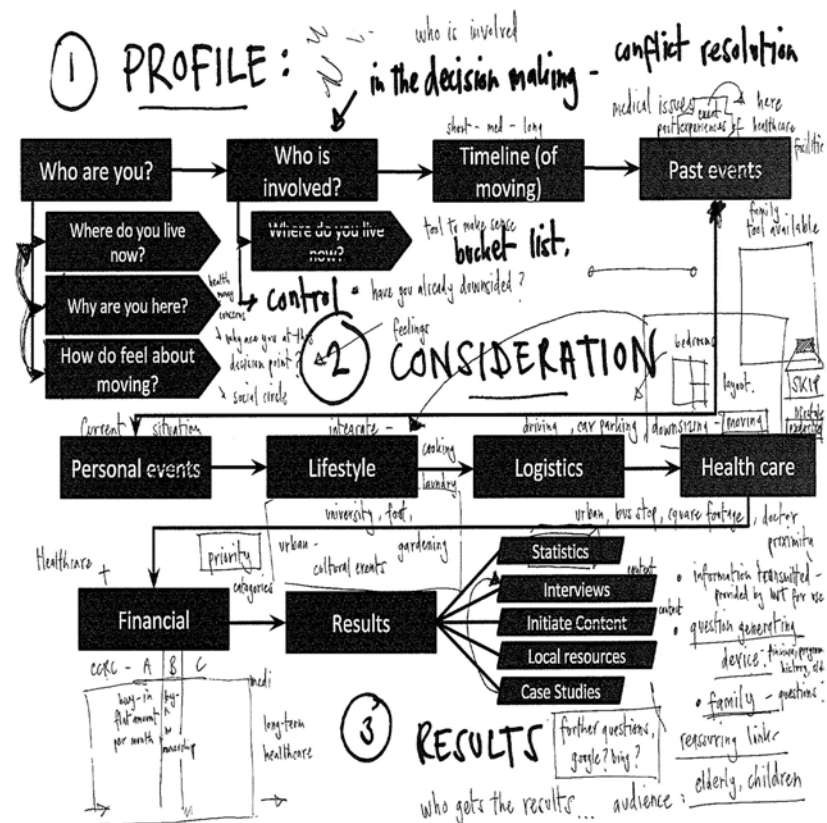
Mike Geis
Linguistics Professor



Ethel Johnson
Professor



Maggie Moore
Economist

[illegible]

stats, resources, interview

WHO YOU ARE?

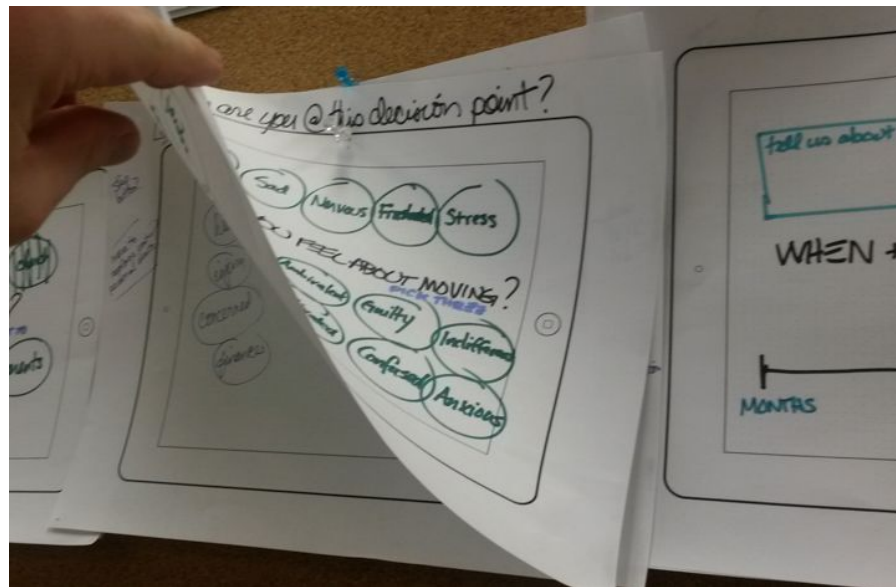
age ①
gender
relationship
occupation

WHERE DO YOU LIVE NOW?

HOUSE / AREA / SCHOOL / OFFICE

WHAT ARE YOU DOING NOW?

WHAT ARE YOU DOING NEXT?



Co-Design Studio 2015

Prelude

Pathmaker for your retirement move.

Name this "scenario"

The 3rd Act

Your nickname:

Sue

Decision Maker

Spouse/
Partner

Child

Friend

Relative

>

Co-Design Studio 2015

Prelude

Who are you?

Tell us a bit more about you

Male Female Single Couple

Age Range

20s 90+

Retired Working Semi-retired

Prelude

Where do you live now?

Select which bubbles apply to you

Urban Suburban Rural

Single-Family House Townhouse Apartment/Condo

With Family/Children Independent With Spouse/Partner With Friends

Near Friends Near Family

Pets

0 Which one(s) 4+

Prelude

Experiences

What ranks as most influential? Hold and drag each experience

Very relevant

Someone in a similar situation Downstairs once already

Loss of spouse/partner Illness or injury Issues maintaining current property

Not relevant

add your own...

My aunt moved to a CCRC facility and she thought it was great

Prelude

Who influences your decision?

Adjust the size of each bubble to reflect that person(s) influence

Spouse/Partner Parents Myself Child(ren) Friends

+ add another name

Prelude

When & Why the Move?

Use the timeline slider to indicate when, then explain why in the speech bubble

When are you thinking of moving?

Less than a year 10+ years

House too big to maintain
I want to make this decision while I still can

Prelude

Target what's important

To your lifestyle

Environment Practical Hobbies Social

grounds view pets planned activities swimming/pool gardening

urban/suburban/rural climate/seasons leisure exercise

amenities proximity transport cooking cultural events proximity to family

walkability walkability proximity to friends spiritual/religious

Co-Design Studio 2015

Prelude

Logistics

Give us the specifics

HAVE **WANT**

of Bedrooms: 0 to 2+ (slider)

Square Feet: 300 to 3,000+ (slider)

Kitchen size: Hot plate to Chef's kitchen (slider)

Public transport access: Not to Important (slider)

Parking: Not needed to 2+ (slider)

Prelude

Health

What ranks as important? Hold and drag each consideration

Not important to Very important

food/dietary (slider)

accommodation options (slider)

fitness availability (slider)

on-site care options (slider)

proximity to medical care (slider)

add your own (input)

Prelude

How do you feel about moving?

Pick Three

happy, frustrated, **stressed**, indifferent, fearful

sad, **nervous**, confused, guilty, **hopeful**

calm, angry, motivated, ambivalent, + add yours here...

Prelude

Finances

How much do you know?

How much do you know about your future financial needs? (slider from I have no idea to I know a lot)

How confident are you in your financial retirement? (slider from Not confident to Very confident)

☐ I need resources. ☒ I'd like to learn a little more. ☐ I need no further info.

Prelude

Results

Select questions for starting a conversation.

- ☒ with loved ones
- ☒ with CCRC's
- ☐ for the move

Email address: [Send to me](#)

Summary

You are on your way to making your decision since you currently live in a single-family home, be sure to understand how much downsizing you will need to do before moving. Since you indicated you prefer to be near cultural events and your family, consider visiting retirement facilities near your children that have events that would interest you. You mentioned you are feeling nervous, stressed and hopeful about this move. Check out an interview or a case study with someone who was in a similar situation.

63% of people who have completed this process and felt NERVOUS about moving too

7% of people who moved to an independent living facility and have already downsized once before

Resources

Local area agency on aging
<http://www.coasa.org/coasa-professional-education.php>

Medicare nursing home compare
<http://www.medicare.gov/nursinghomecompare/search.html>


Independent living search
<https://www.caring.com/local/independent-living>

Brief overview of how to pay for independent living
<https://www.caring.com/articles/how-to-use-public-bene>

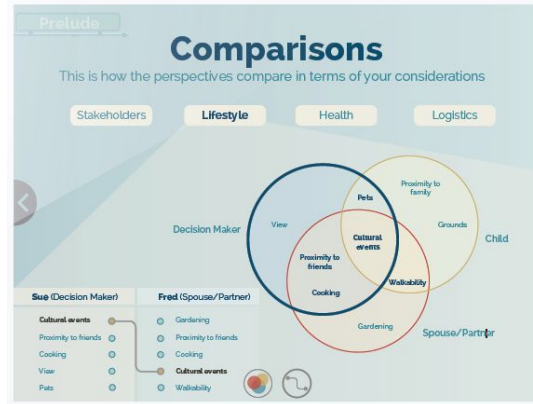
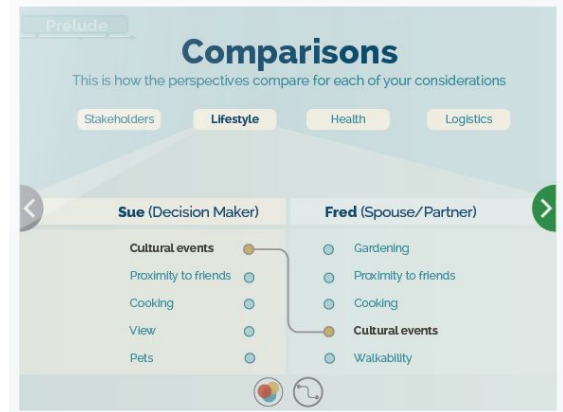
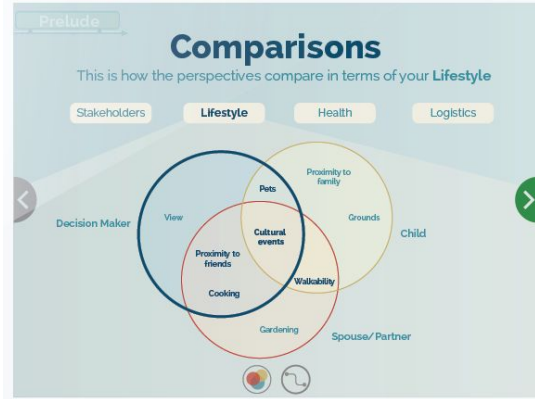
Top 10 Questions To Ask A Continuing Care Retirement Community
<http://www.leadingage.org/Article.aspx?id=4847>

For children:

Case Study: Interview



Co-Design Studio 2015





Co-Design Studio 2017

The graduate student disciplines:

- . Arts Administration, Education and Policy
- . Fisher College of Business
- . Industrial and Systems Engineering
- . Psychology
- . Design

From eight countries:

- . India
- . China
- . Indonesia
- . Turkey
- . Kuwait
- . Australia
- . USA

*Design 6400
Spring Semester 2015*



Future aging and social engagement

**EXPLORING OPPORTUNITIES WITH
OLDER ADULTS: A CO-DESIGN STUDIO**

The Design Department in collaboration with OSUWMC's IDEA Studio for Healthcare and Design invites graduate students from all disciplines to join us in exploring meaningful opportunities for future experience. We will focus on social engagement and community building by co-designing with older adults.

Format
Design studio

Class number
D6400-0010 17375

Participants
Graduate students from all disciplines are welcome. Class size is limited to 16, so please enroll early.

When and where
222 Hayes Hall,
Tuesdays and Thursdays
from 5:00 to 6:30

Facilitator
Liz Sanders, Ph.D.,
Department of Design

Questions?
Send me an email
at Sanders.82@osu.edu

***We are particularly
interested in
hearing from
graduate students in***

- Gerontology
- Nursing
- Business
- Marketing
- Psychology
- Social work
- Communications
- Computer science
- Engineering
- Public health
- Education
- Human ecology
- City planning

OPEN TO ALL DISCIPLINES. SEEDED BY DESIGN

CLASS NUMBER: D6400-0010 17375

Co-Design Studio 2017

Passport: a program to help with new resident onboarding

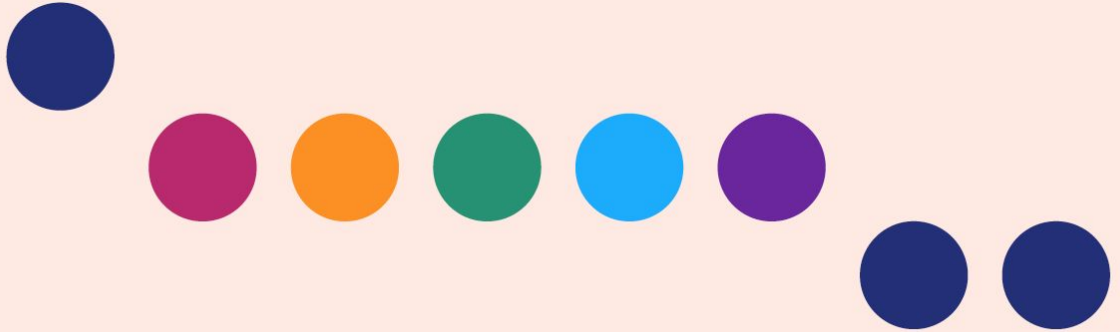
Event planning: helping residents use the Ohio Living Westminster Thurber community

Mentoring programming: how to develop and implement a mentoring program for new residents to Ohio Living Westminster Thurber

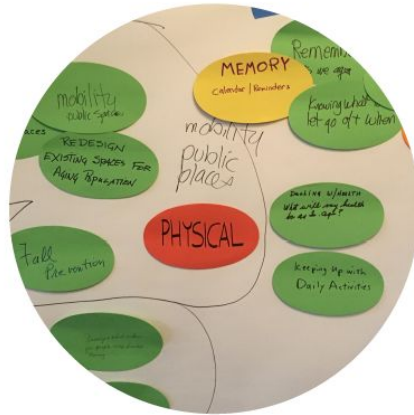
Senior and driving: when is it time to give up the keys?

New map: for Ohio Living Westminster Thurber

The public space and physical ability team



Our Starting Point (week 1)



Public space

Hearing loss

Memory

Mobility

Activity

Daily activities

Fall prevention

Co-Design Studio 2017



Our Direction



Our codesign sessions allowed us to dwell on these issues.

The recurring topic was *driving*.

How to start
a conversation on
driving, mobility
and aging

How to start a conversation on driving, mobility and aging

A tool for assessment of ability

Adam Fromme, Gretchen Alexander, Chris Allen, Maggie Moore,
Bob Roth, Jinnic Willard, Ardiyanto, and Trisha Shah

Table of Contents

So, what is this and how do I get started?	7	●
The Pretest	17	
<i>Session 1</i> Vision	21	●
<i>Session 2</i> Hearing	43	●
<i>Session 3</i> Physical mobility	51	●
<i>Session 4</i> Cognitive function	66	●
<i>Session 5</i> Support	82	●
Action	96	●
Next Steps	102	●

Did you know

In 2014, more than 236,000 were treated in emergency departments for motor vehicle crash injuries.

In the age group 80 years and over, one in three people have vision less than the legally required driving standard. It is projected that, by the year 2051, there will be at least double the number of elderly people and thereby an increase in the number of people with impaired vision.

Session 1 **Vision**

Session 1 - Vision



General vision information

People over age 60 should have dilated eye exams yearly. During this exam, the eye care professional will put drops in your eyes to widen (dilate) your pupils so that he or she can look at the back of each eye.

This is the only way to find some common eye diseases that have no early signs or symptoms. If you wear glasses or contact lenses, your prescription should be checked, too.

See your doctor regularly to check for diseases like diabetes and high blood pressure. These diseases can cause eye problems if not controlled or treated.

If you or your loved one is over the age of 60, talk about these symptoms.

- a) Suddenly cannot see or everything looks blurry
- b) See flashes of light
- c) Have eye pain
- d) Experience double vision
- e) Have redness or swelling of your eye or eyelid

ORIGINAL CONTENT SOURCE

<http://www.nytimes.com/health/guides/symptoms/vision-problems/overview.html>

Additionally, become aware of some common age-related eye problems listed on the following pages. Compare the affected vision and normal vision images to understand the impact of these conditions.

Session 1 - Vision



Common eye problems



Affected vision



Normal vision

Glaucoma

How it affects your driving

Glaucoma often comes from too much fluid pressure inside the eye. If not treated, it can lead to vision loss and blindness. People with glaucoma often have no early symptoms or pain. You can protect yourself by having dilated eye exams yearly.

What can be done

Glaucoma can be treated with prescription eye drops, lasers, or surgery.

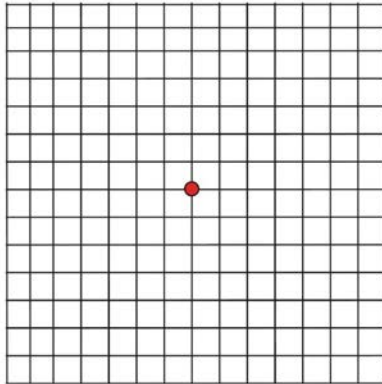
Session 1 - Vision



Test 1

How To Test Your Eyes With This Amsler Grid

Hold this page at arm's length and cup one eye.

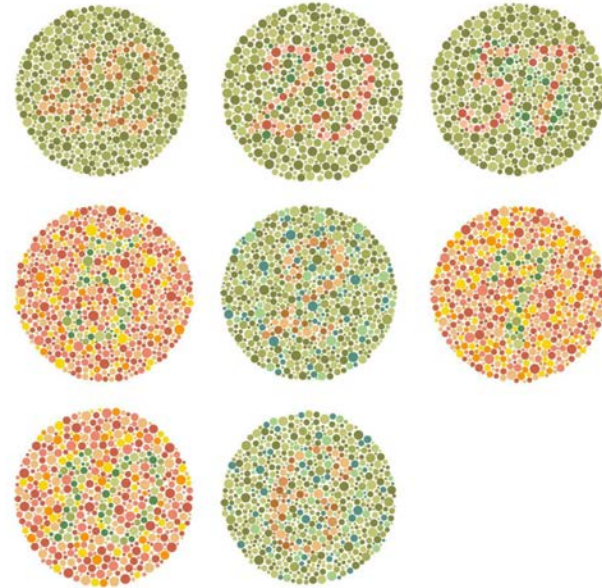


Session 1 - Vision



Test 2

Ishihara Color Vision Test



Session 5 Support

Session 5 - Support



Why these 4 discussions?

We identified 4 types of support. Each type relates to driving in its own way, but together they will help inform you when decisions need to be made about your older adult in the Summary Section.

The four types of support are

Financial

What is the cost of ownership?

Caregiver

Who can help?

Location

What support is in your area?

Social

How else can you meet your social needs?

Co-Design Studio 2017

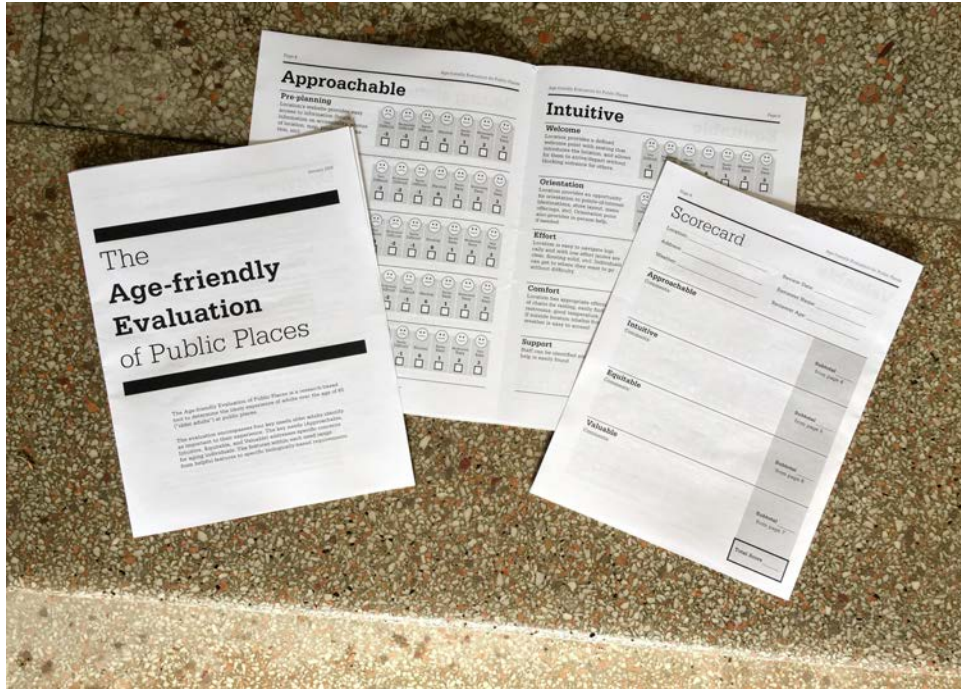


Downloads of the PDF are available at
design.osu.edu/6400drivingbook

The book will be distributed by the Ohio
Department of Transportation in 2018.

An Age-friendly Evaluation Tool for Public Places

Adam Fromme MFA 2018



Co-designed with older adults

To be used by older adults

Now collaborating with
Age-friendly Columbus to certify
local businesses as
age-friendly places.

Framing the Wicked Problem of Transitions for Adults with Autism

MFA Thesis

In collaboration with OSUWMC, Nationwide Children's Hospital, Caregivers, and Adults with Autism

The project began with exploring the unmet needs and opportunities tied to OSUWMC's CAST (Center for Autism Services and Transitions)

but that's not where we ended up...



What we discovered was that in order to best serve our patients with autism during the transition process (from adolescent to adulthood), we need to develop service offerings, tools and processes that go beyond fixing physical ailments and the physical environment of the clinic,

to helping people living with autism reach their maximum potential outside the clinic.

“We have a lot of ideas. What we don’t have is cohesion and shared understanding across stakeholder groups to define unique opportunities that could be implemented to create an ideal transition and clinic experience.” - Chief Innovation Officer for OSUWMC’s Idea Studio

Problems to Tackle

There were **many ideas but little convergence** around which ideas would have the greatest impact on stakeholders

Individuals with autism did **not have a platform** to voice their needs and ideas

There was **little communication** between NCH and CAST providers

There were many **needs** of patients/families that had **not yet been fully addressed**

Initial Questions to be Explored

How do we **reshape the physical clinic environment** to meet the needs of the patients?

What are the **gaps/missed opportunities** in the current clinic and autism network in Columbus?

How can we **vet and prioritize collective goals/ideas**?

How do we **create true value** in the new clinic and make it sustainable?

Participants



Caregivers
(Parents)



Adults with
Autism



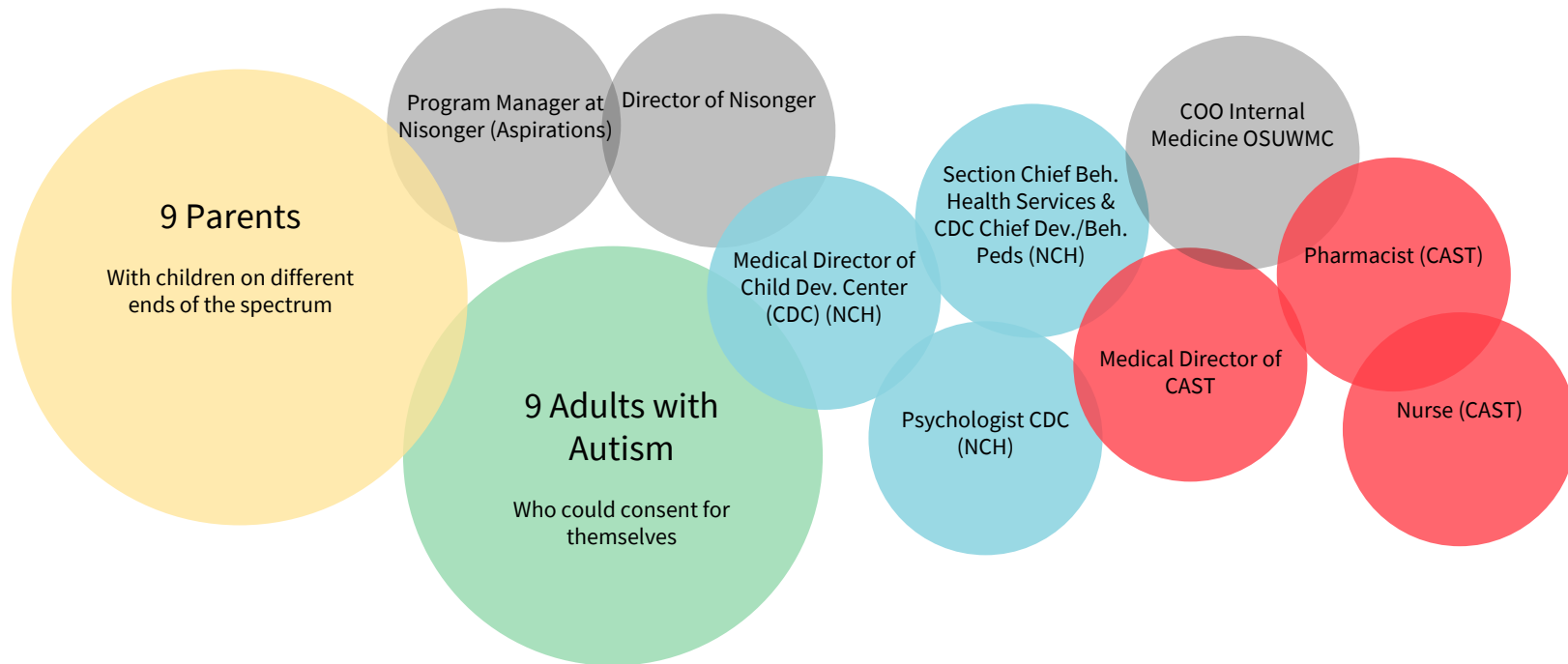
OSUWMC Healthcare
Administrators



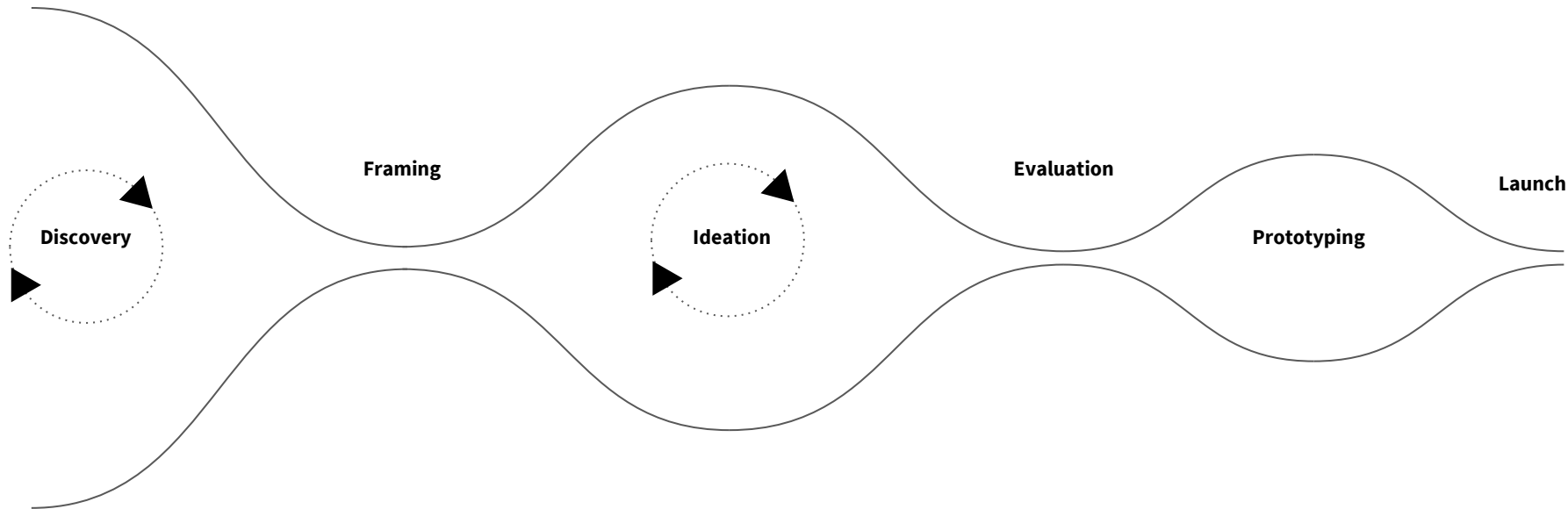
Healthcare
Providers (CAST)



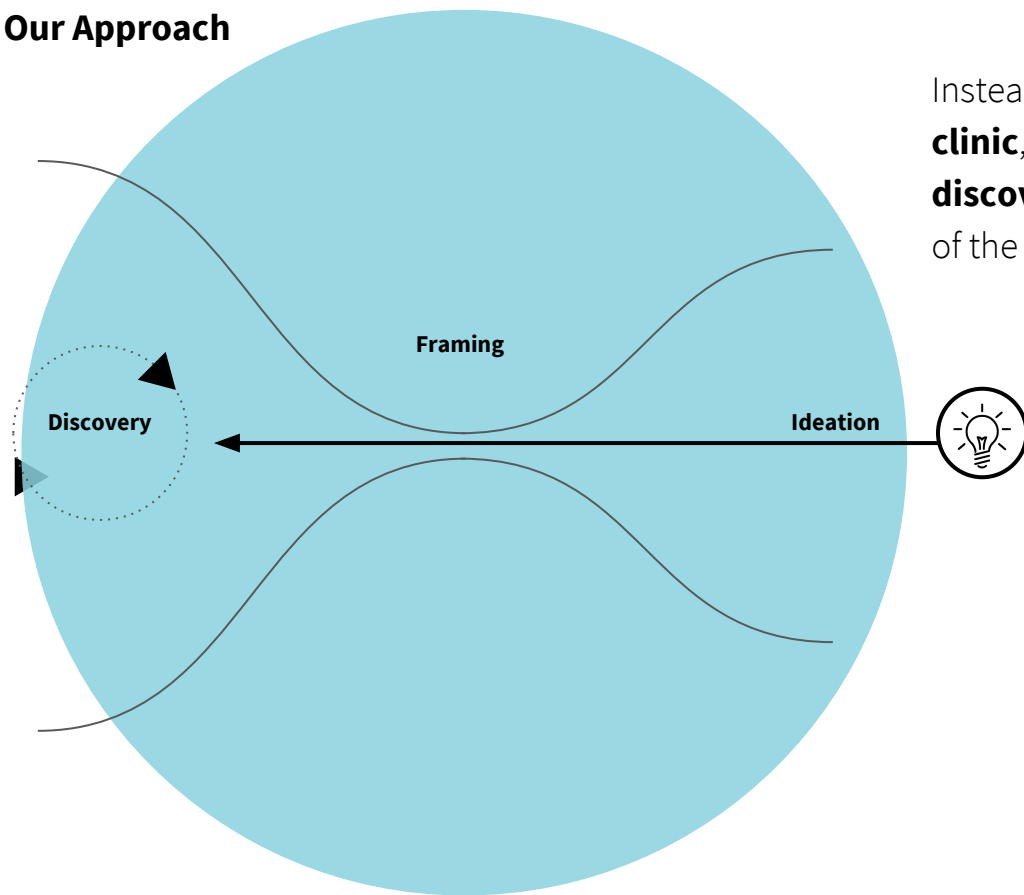
Healthcare
Providers (NCH
Child Dev. Center)



Typical Design Approach

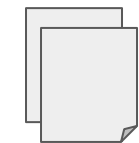


Our Approach

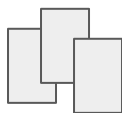


Instead of jumping into **brainstorming ideas for the clinic**, we **broadened our scope and began at the discovery phase** to collectively understand the context of the problem for **reframing**.

DISCOVERY



Priming
Homework
(Prep and
Reflect)



Method Cards

Understanding unique
perspectives by looking at
transitions through different
lenses.

F2F Interviews



Focus Group



Focus Group



FRAMING

Initial Ideas

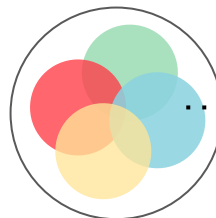


Needs / Wants
& Concerns



Presentation created by
each stakeholder group to
elicit **empathy**

Opportunity Finding Workshop

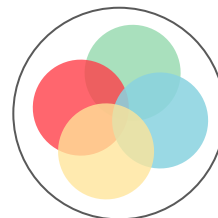


Problem Probing
Cluster Mapping

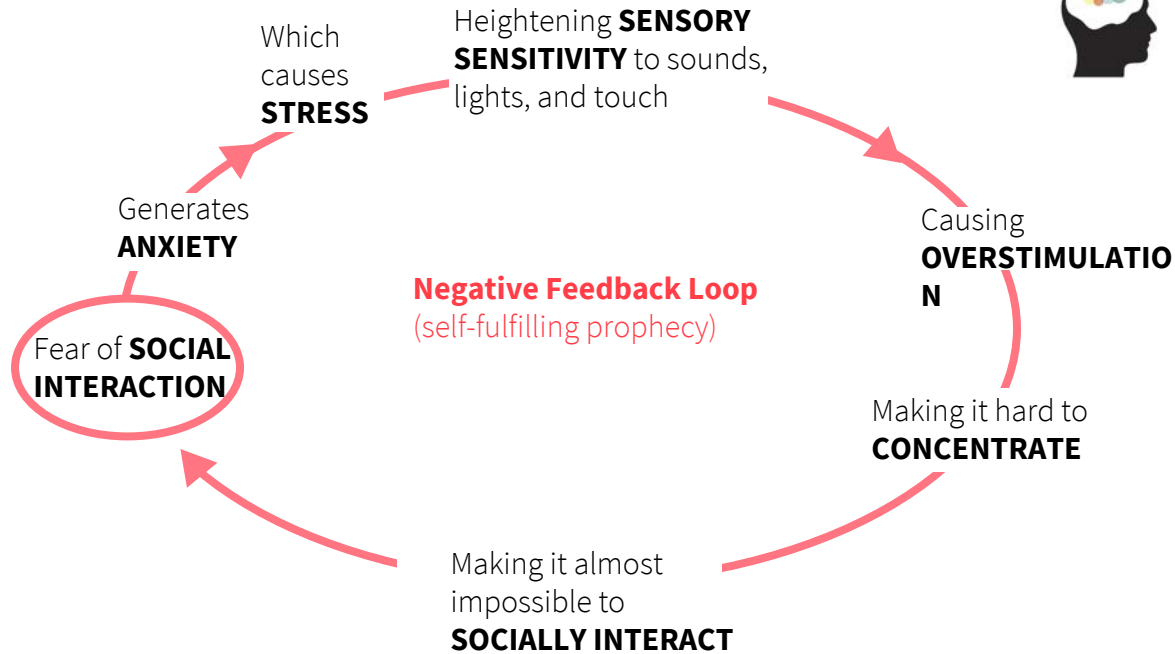
Analysis
Prioritization
of Wants/Needs

IDEATION

Ideation Workshop



Persona Profiles
Futuring Scenarios
Prototyping



Opportunity Finding Workshop



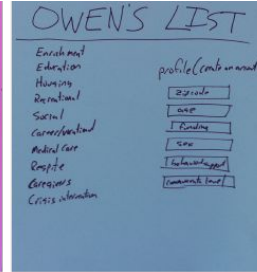
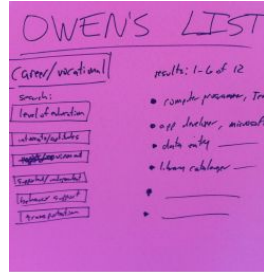
Ideation Workshop

We co-design many ideas including:

A Resource Platform

Connected Care Team Model

Social Gaming Platform



The workshop with adults with autism and the Opportunity Finding Workshop with all stakeholders **changed the direction** of the project from focusing just on the clinical setting, **to the broader needs of transitioning** adults that extended beyond the environment of the clinic.

“We can’t succeed in medical care unless people are succeeding in other areas of their lives – those go hand in hand.” -Director of C.A.S.T.

Outcomes

We **can create true value** in the new clinic and make it sustainable by:

- Understanding the patient's **holistic needs** (not just medical)
- Bringing in **social workers** and other extenders/connectors to help patients and families navigate the transition process and care needs
- **Improving training and awareness** within/outside the clinic for a more patient-centered model and increased access to quality care
- Providing **resources** in the clinic that help to **connect** adult patients to **housing, socialization, and employment opportunities**

Intangible Outcomes

Pre and post assessments demonstrated **increased empathy and understanding** about transition challenges for different stakeholders, and the feeling of **empowerment** to make improvements to the system.

Hospital administrators, providers, and parents benefited from **hearing** the **needs and wish fors** of patients with autism, **directly from patients with autism**.

“Nothing about us, without us.” - Justin, an adult with autism

The **adults with autism felt heard**, their ideas and thoughts **valued** and equal to that of the other stakeholders collectively participating in the workshops.

Future Possibilities

Product, environment and service concepts were imagined. Many of the ideas touched on topics like: **Navigation and Care Coordination, Socialization, Long-term Planning, and Improved Access to Quality Care**, which could be carried out and further developed in future projects and research studies.

Next Steps

As a continuation of the work done for the MFA Thesis, we received a grant to explore key opportunities connected to many of the topics above, **in the context of healthcare transitions** from pediatric care (NCH) to CAST, and from CAST out to specialists and other General Practitioners.



Co-Designing Processes & Solutions for Healthcare Transition in Autism

Continuation • Sponsored • Discovery & NCH Pilot Grant

In collaboration with OSUWMC, Nationwide Children's Hospital, Caregivers, and Adults with Autism

Research Questions

What is the **current** healthcare transition process from NCH to CAST?

What could/should a **future, ideal transition process** look like? What tool(s)/resources/services are needed?

With an rapidly growing patient population at CAST, how can we equip our patients with the ability to be able to get **care anywhere?**

Participants



Patients with
Autism



Caregivers
(Parents)



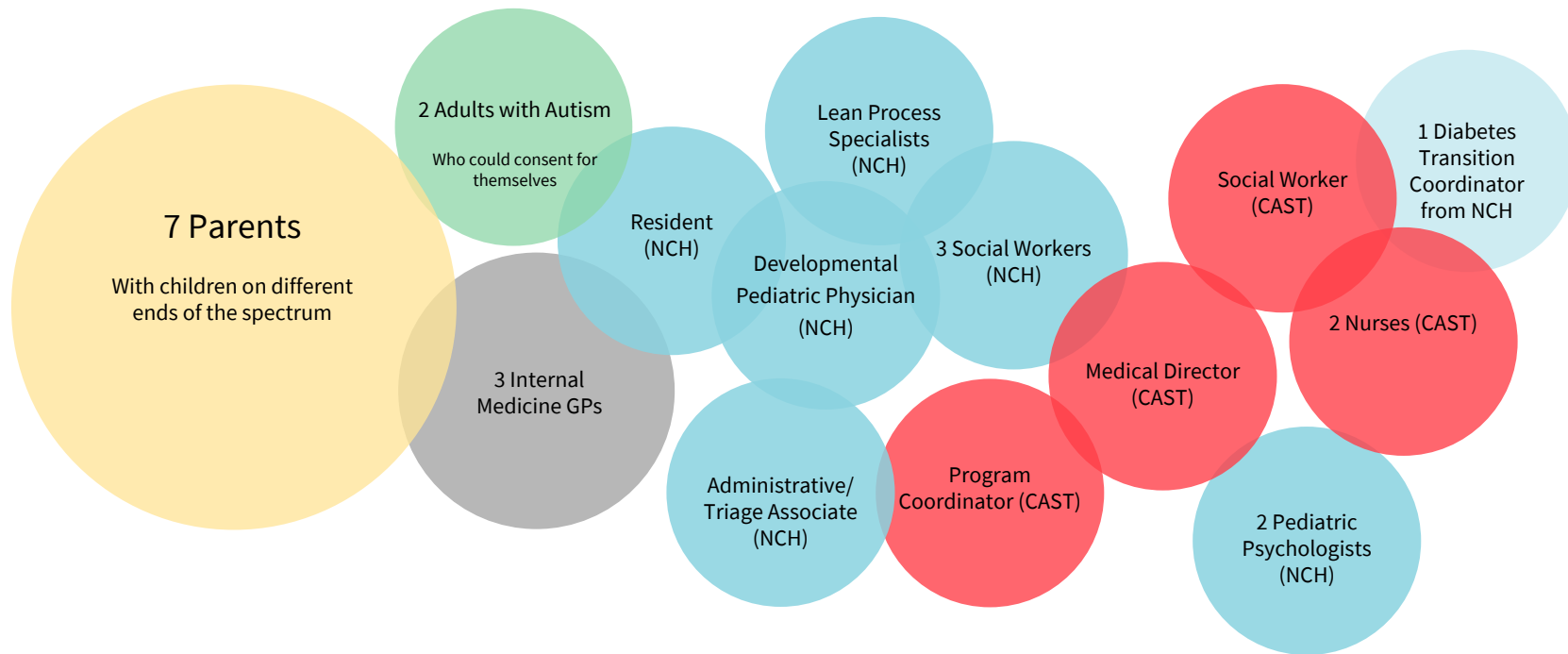
OSUWMC
(CAST)



OSUWMC
Physicians



Nationwide
Children's Hospital



Approach

Multiple One-on-One Interviews & Co-design Workshop Sessions

To understand stakeholder needs and together generate new solutions/ideas for a more ideal process.

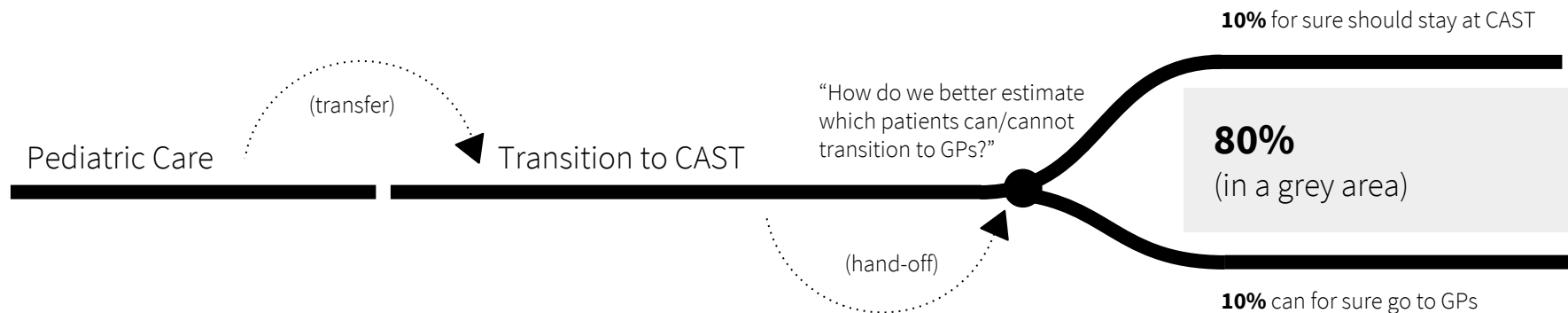
Iterative Prototyping

To validate and refine ideas. Ideas were constructed on paper during the sessions and brought into the following sessions for feedback and iterative development.



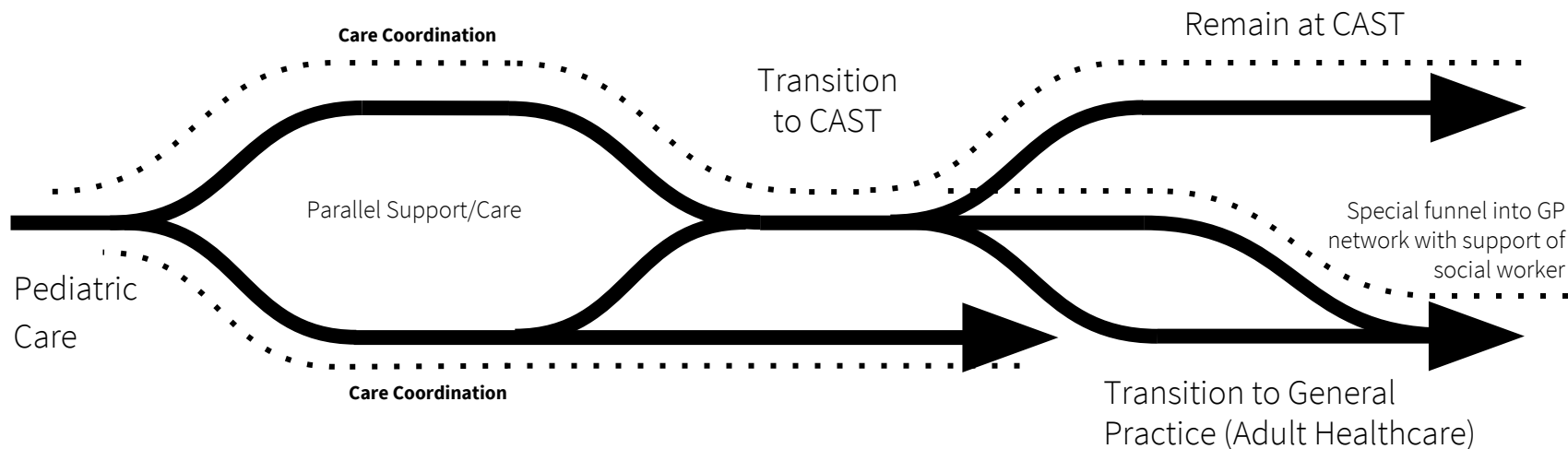
What We Learned

*The current single-path approach feels more like a **transfer** than a **transition**.*



What We Learned

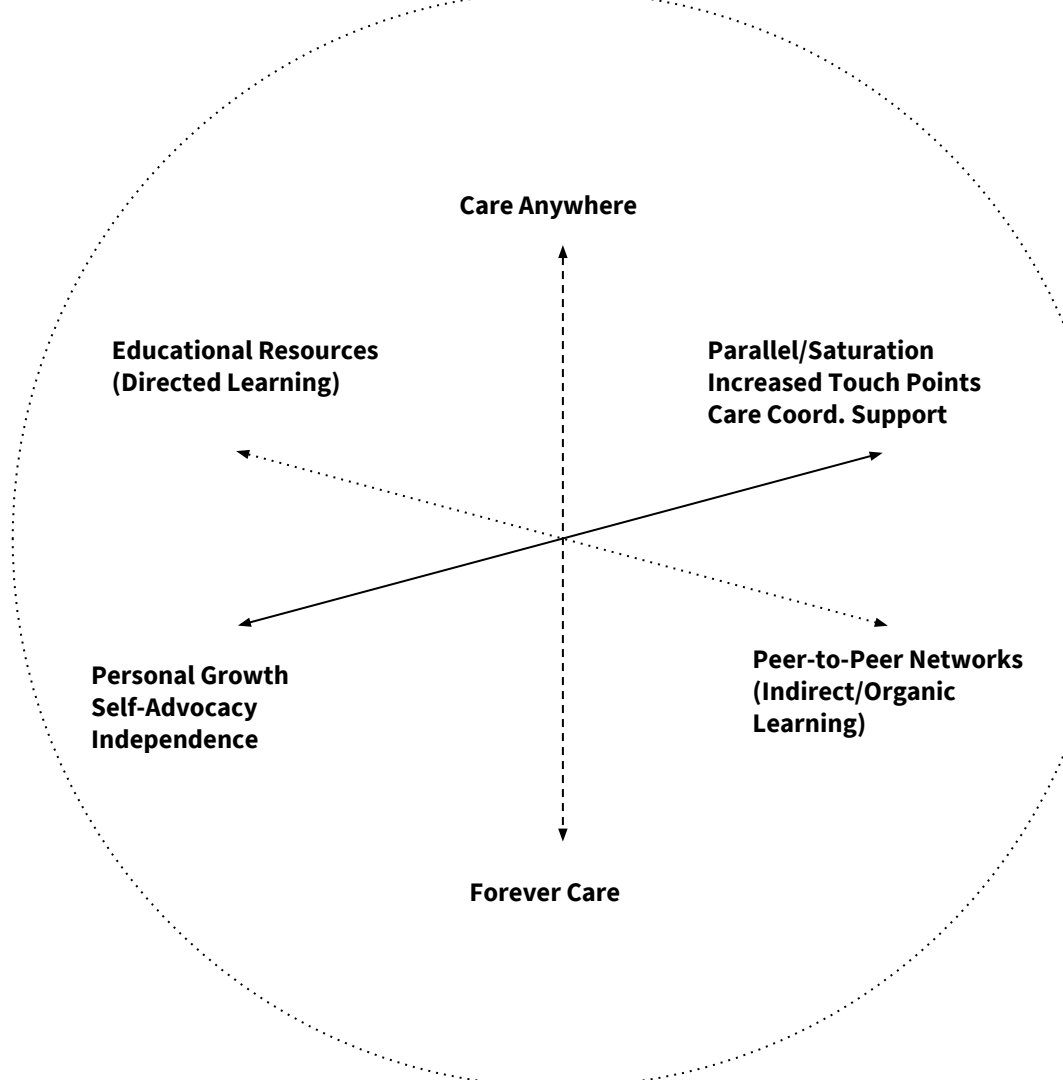
The ideal is a **multi-path approach** with options for different types of patients, with differing needs, which leverages the value of saturation and **parallel care**, with **increased care coordination touch points**.



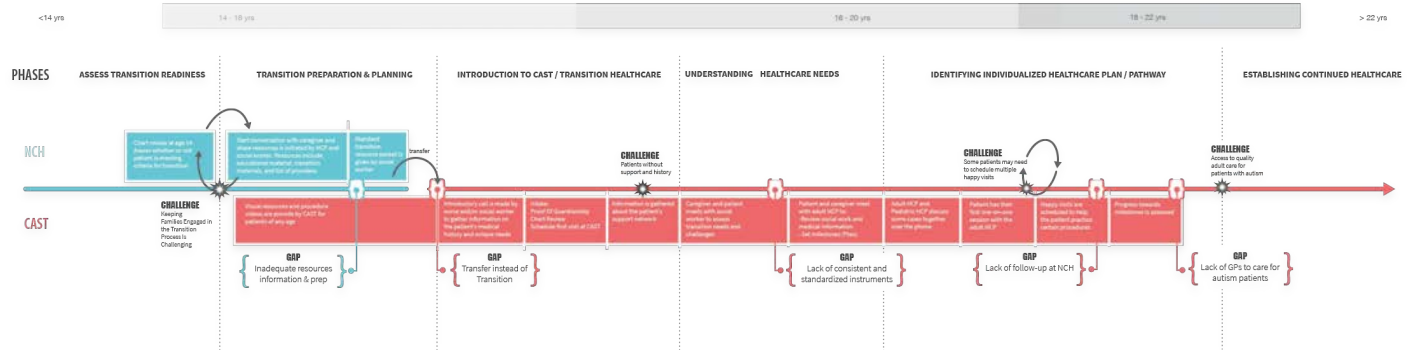
What We Learned

Multiple Dimensions of
Healthcare Transitions

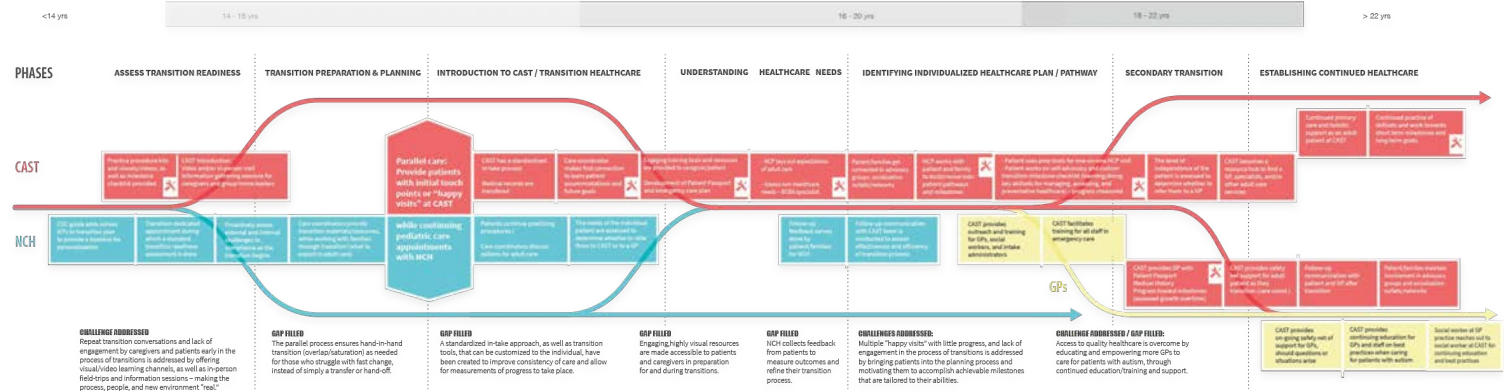
1. **Patient-Centered Care** (y-axis)
2. **Education and Outreach** (z-axis)
3. **Level of Support/Independence** (x-axis)



CURRENT TRANSITION MAP FOR PATIENTS WITH AUTISM



FUTURE IDEAL TRANSITION MAP FOR PATIENTS WITH AUTISM



Current insights
and challenges
mapped to the
current journey

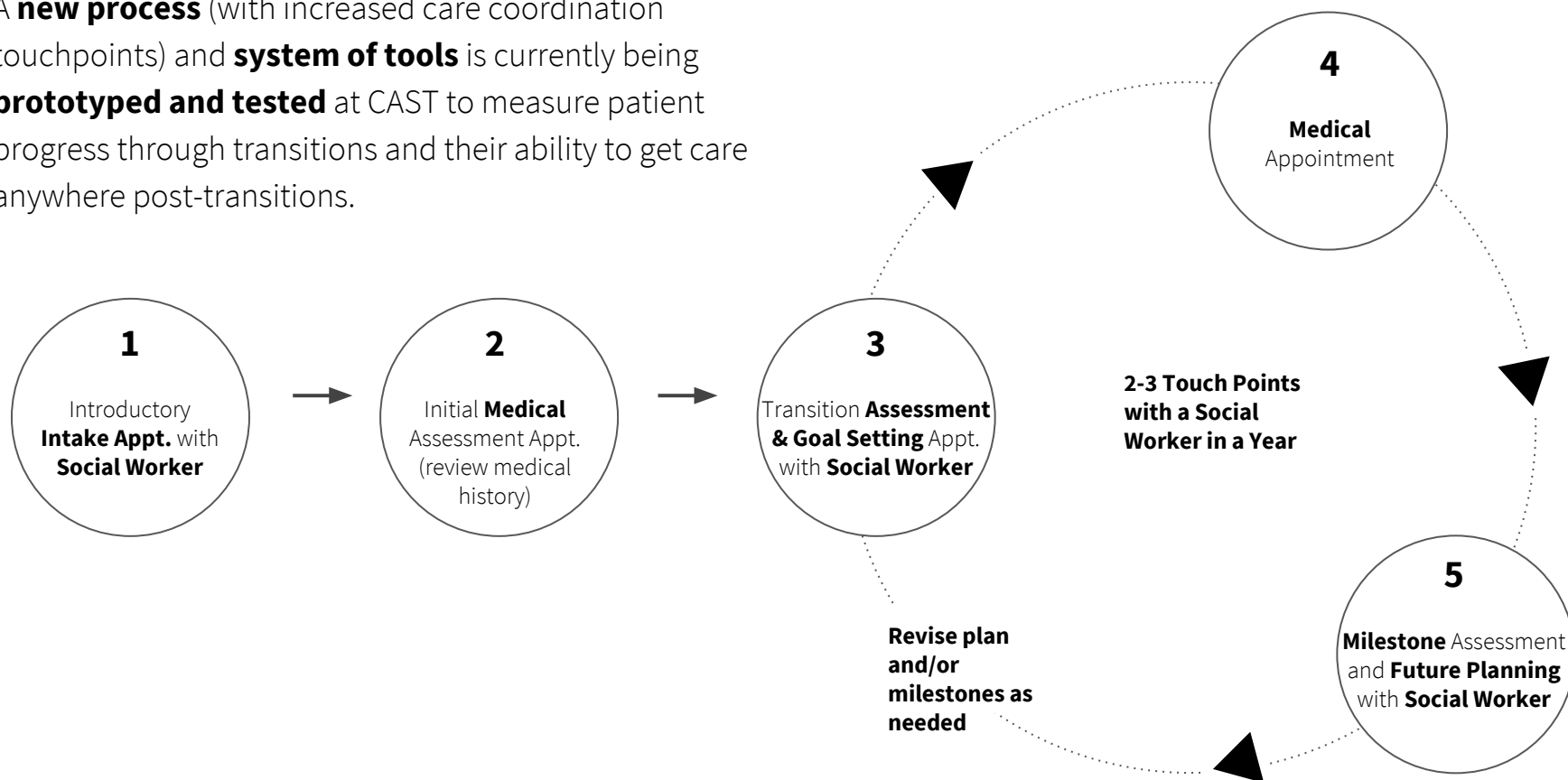
“How Might We”
opportunities
mapped to a
future ideal
journey

Outcomes

We developed a **standardized, yet customizable** process and set of tools for transitions that:

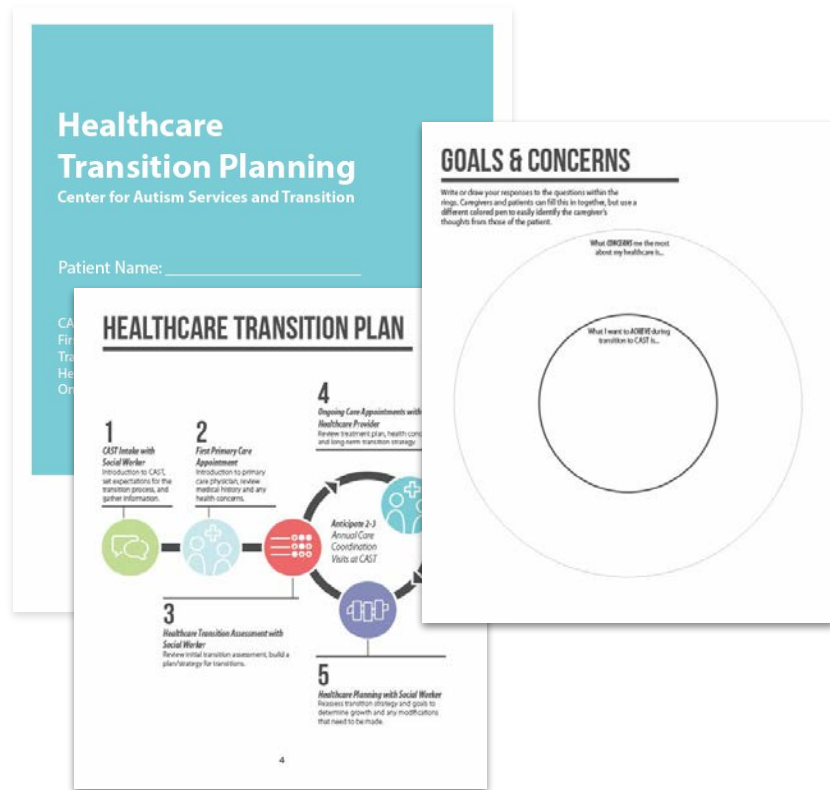
- **Assesses, measures and tracks** changes/patterns in patients overtime (pre, during, and post transitions)
- **Involves patients (and caregivers)** in shared decision-making, future planning, and goal setting to encourage/support self-advocacy and mastery of skills for individual success and the ability to get care anywhere

A **new process** (with increased care coordination touchpoints) and **system of tools** is currently being **prototyped and tested** at CAST to measure patient progress through transitions and their ability to get care anywhere post-transitions.



Healthcare Transition Toolset

- **Creates engagement** in the transition process through the integration of visual materials, starting with a visual guide of the process
- **Educates** patients and caregivers in the process of transitions
- **Facilitates** open discussion around goals/concerns and shared decision-making for long-term planning



Healthcare Transition Toolset

- **Encourages goal-setting and mastery** of skills necessary for transitioning into adult care, building self-advocacy, and getting care anywhere
- **Assesses current state, while also** providing patients, caregivers, and providers with a **plan of action**
- **Potential to generate revenue** for the clinic through the process and toolset



Intangible Outcomes

Captured the **tacit knowledge** about transition care held by various providers

Brought providers from **NCH and OSU** together to **collaboratively assess** the current processes, identify overlaps/misalignment, and explore future opportunities together

Involved caregivers and adults with autism in the process of not only expressing unmet needs but **co-designing solutions** for transitions

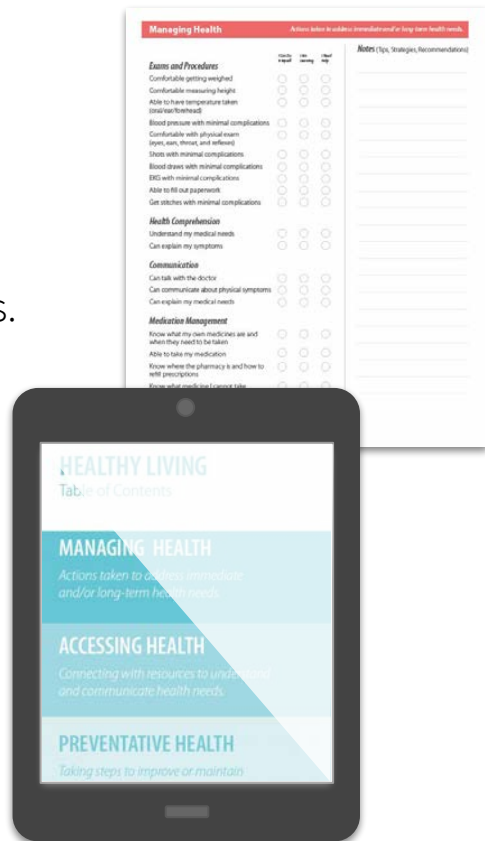
Next Steps

Prototyping the New Transition Process and Assessment Tool to determine changes (emotional, functional, etc.) in transitioning patients overtime

Exploring capabilities of integrating the **assessment tool into MyChart** so progress and milestones can be shared across providers and care supporters.

Developing **Educational Resources And Outreach** Programs that facilitate continual learning and the creation of peer-to-peer networks for organic learning among patients, caregivers, and/or GPs

Exploring capabilities of a **Gamified Responsive Website** to help individuals with autism practice self-advocacy and master skills (from assessment) needed for getting care anywhere





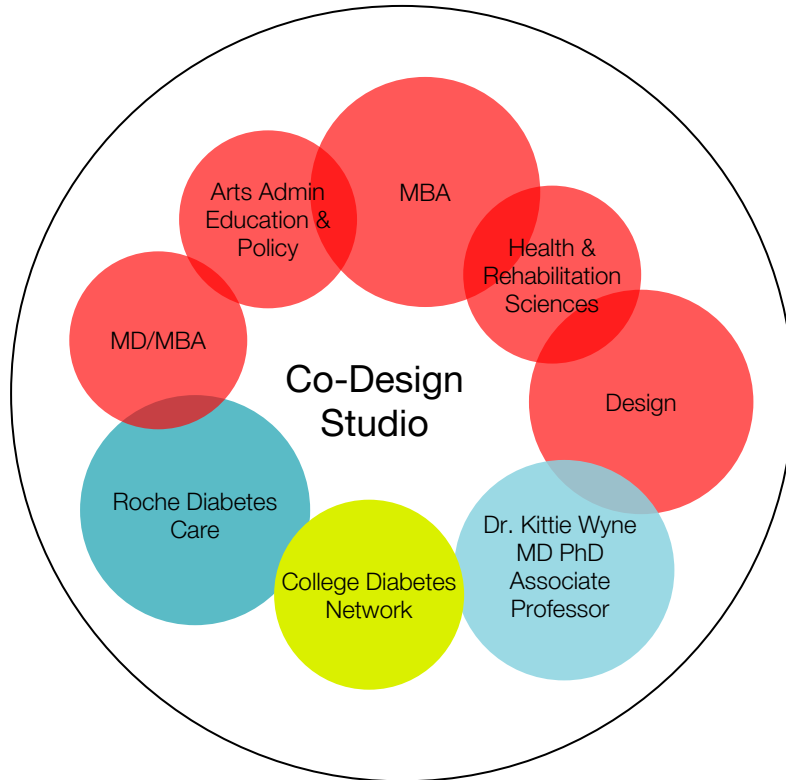
Co-Designing Solutions for Diabetes Care

Interdisciplinary Co-Design Course

In collaboration with those living with Type 1 diabetes, parents, healthcare providers and medical device companies

This collaboration came about through

Design 6500, a co-design studio course taught by Prof. Liz Sanders



Goals

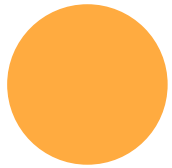
To bring young people living with Type 1 Diabetes (T1D), parents, healthcare providers and others directly into a co-design process with the students in order to:

- Understand the current experience of growing up with and living with T1D and
- Use co-design to imagine and express concepts for future experience that could improve the lives of those living with T1D.

DISCOVERY

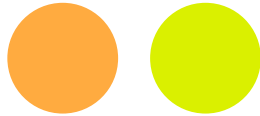


Learning from
Experts

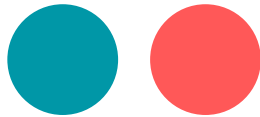


Experiential
Immersion

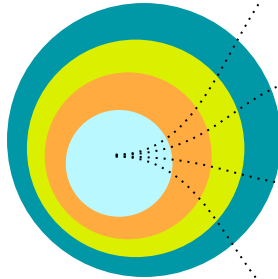
F2F Interviews



Focus Groups



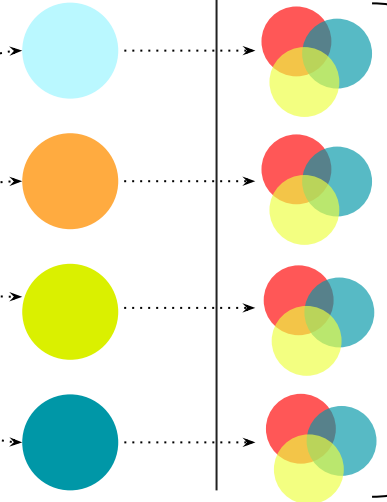
Identification of
Themes



Circles of Care

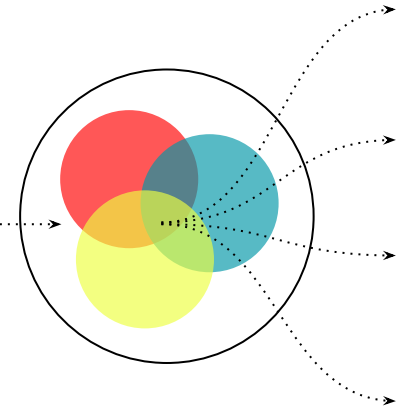
FRAMING

Opportunity Framing



IDEATION

Ideation Workshop



Guest Speakers

- *Dr. Kathleen Wyne, MD PhD, Associate Professor, Endocrinologist from OSUWMC*
- *Katie Thivener, OSU Senior with T1D who is heading up the OSU chapter of the College Diabetes Network*
- *Marco De Polo, Anja Seybold and Keith Verner, Roche Diagnostics Operations, Inc. Diabetes Care*
- *Colleen Rinehart, Diabetes educator from OSUWMC who has T1D*
- *Dr. Elizabeth Buschur, T1DM Transitions Clinic from Nationwide Children's Hospital*
- *Dr. Andrew Wapner, Director of the Center for Public Health Practice at OSU's College of Public Health and pediatric expert*



24/7 Management

How can we alleviate
Some of their daily frustrations
without adding another/extra step to
multiple injections
Do on a daily basis (preparing for everything)

Tools for CONV.
Self-Mgmt

Tools for learning
built into device

Making the training/
learning process fun,
engaging, & memorable

Advanced pump
education

Tools for accessing
information when health
practitioner is not present
that are not just written
like binders, and that
facilitate communication
between patient/health practitioner

Tools to 'make better'
information-
decisions, systems
understanding

The transitions
high school, college, workforce,
pregnant, parent

Tools to assist
life transitions (college
work
pregnancy)

Compliance w/
lifestyle adjustment
(teen/adult)

Tools TO HELP WITH
TRANSITION

tools to help during
the teenage period

Transition from
peds to adult
(or teen to late teen)

Tools to help during
the transition to
college

Online resources/social media
to educate &
communicate, connect

Diabetes Education
after discharge

Public Policy
re. Diabetes Educ.

Nutrition as
a lifestyle

Nutrition as prevention

Importance of
Nutrition & Carb
Counting

T1D specific
Ed → "how" "when"
do this?

Additional in-school classes
- T1D
- etc

Human Resources
training for all employees
to come in contact with
those who do T1D

- Looking at T1D as
both "medical"
- disciplines, etc.

Breaking complex
information into
easy to interpret
simple / clear format

T1D and
mental health

Mental Health

DEPRESSION / DIABETES
"Expand" College of Diabetes
Nutrition
to include non-D.

Psychological
effects — planning, control,
depression, eating disorders etc.

Psych Impact
(control, panic, anxiety,
self-blame, isolation)
body image, planning

T1D/T2D confusion

Public misconceptions
abt T1D & psychologically
impact

T1D Role Models
w/ C&N

T1D/T2D
distinction

T1D/T2D confusion
& misconceptions about T1D

MYTHS & MISPERCEPTIONS

Overstressed by
T1D

24/7 Management

How can we automate
Some of their daily fastidions
without adding another/extra step to
multiple mycrons
Do on a daily basis (preparing for surgery)

Tools for CONV.
Self-Mgmt

Tools for learning
built into devices

• T1D/T2D confusion

• Education

• Transitions

• Connections across the circles of care

• Building empathy for others in the circles of care

• Mental health

• Nutrition

• 24/7 management

• Support for the inner circle

Public Policy
Re: Nutrition Educ.

Nutrition as
a lifestyle

Importance of
Nutrition & Carbs
Counting

Advanced form
education

Education (Simulation)

- the night-time, classes
in school - T1D
- etc

Tools to 'make better'
information-
System-
decision-
understanding

Tools for personal
practitioner is not present
that are not just written
like binders, and that
between patient and
practitioner

Human Resource
many for all employees
it seems to contract with
some who do T1D &
taking complex
information into
daily to manage
things like diet

- looking at T1D as
high levels
complexities are
dealing

T1D specific
Ed -> "how" "when"
do this?

The transitions
high school, college, workforce,
pregnant, parent

Tools to assist
life transitions (college,
work, pregnancy)

Compliance w/
lifestyle adjustment
(teen/adult)

Mental Health

Mental Health

tools to help during
the teenage period

Transition from
peds to adult
(or teen to late teen)

Tools To HELP WITH
TRANSITION

Tools to help during
the transition to
college

Discussion
"Expand" College
Nutrition
include some

Impact
(conflict, stress, anxiety,
self-blame, guilt, shame,
low mood, etc.)

T1D/T2D confusion
Public misconceptions
abt T1D & psychologically
impact

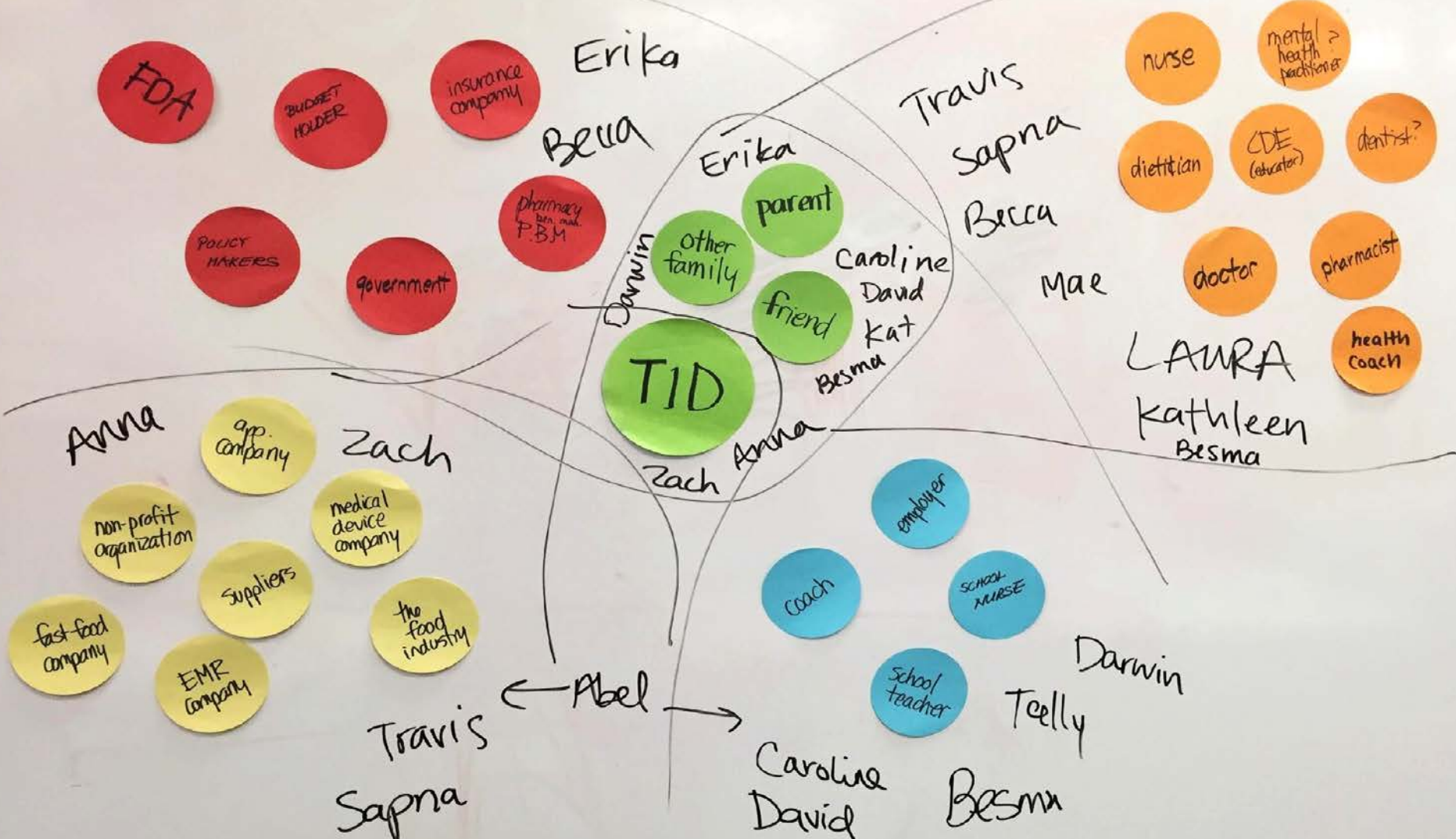
T1D Role Models
w/ CAN

T1D/T2D
distinction

T1D/T2D (children
& adolescence, pregnancy, etc.)

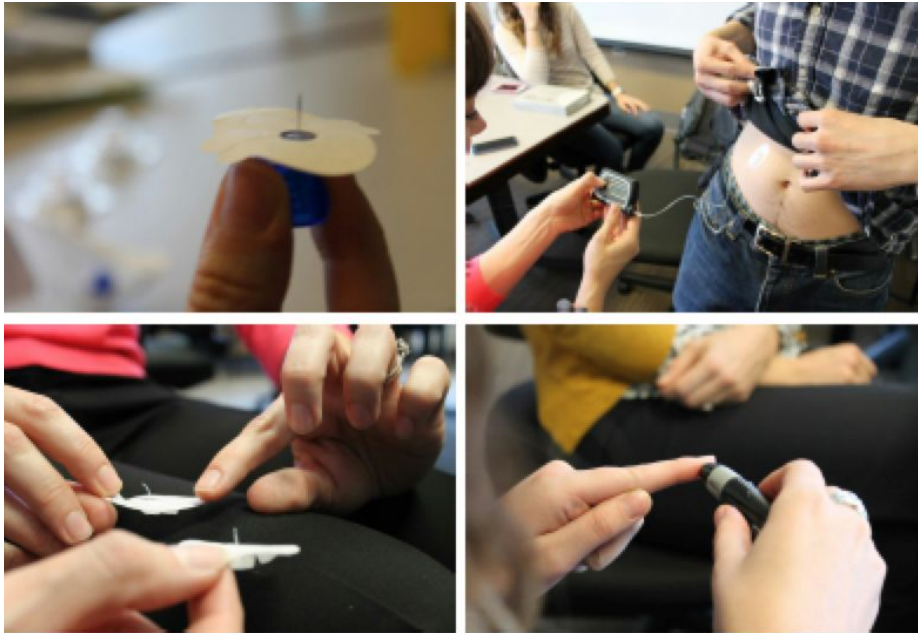
MYTHS & MISPERCEPTIONS

Overstressed by
T1D



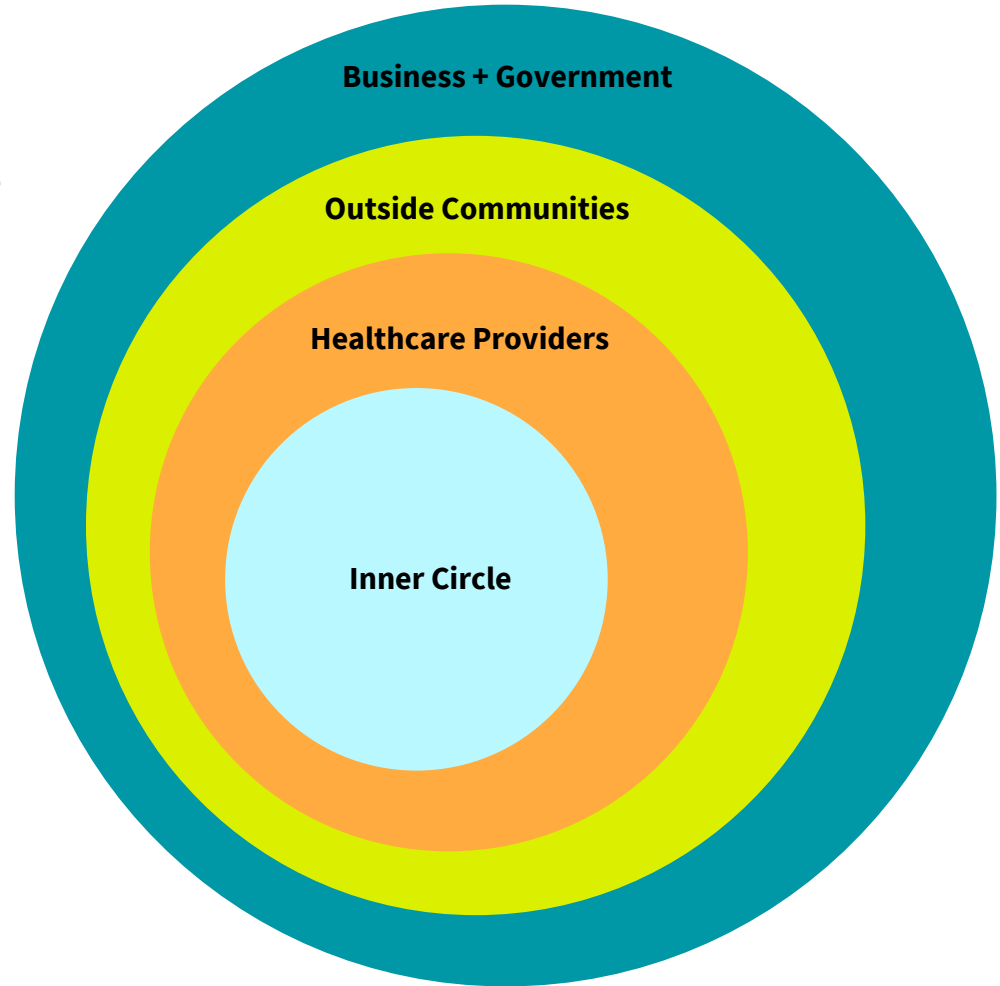
Experiential Immersion

Students got first hand experience using diabetes monitoring devices provided by Roche.



Circles of Care

Interviews conducted for better understanding of the circles of care



Inner Circle

Zach, Besma, David, Josh

Moms

Dads

Significant others

Siblings

Close friends

Other close family members

Healthcare Providers

Travis, Mae, Laura, Kathleen

Physicians

Nurses

Social workers

Mental health practitioners

Diabetes educators

Dietitians

Pharmacists

Dentists

Health coaches

Communities

Tally, Abel, Caroline, Darwin

Teachers

Coaches

School nurses

Other students

Co-workers

Bosses

Larger group of friends

General public

Business + Government

Erika, Becca, Sapna, Anna

Medical device manufacturers

Suppliers

Pharmacy benefit managers

FDA

Government

Insurance companies

Policy makers

Non-profit organizations

Advocacy groups

Co-Design Workshop

All four teams with 40+ workshop participants that included T1D patients, inner circle of care, community members, healthcare providers, medical device company representatives



Type 1 Diabetes and Inner Circle of Care

Co-Designing and Educational Insulin Pump Game:

The co-design team worked with Certified Diabetes Educator **Eileen Faulds** at OSUWMC to help bring her vision of a simulation game that can teach diabetics about pump use.

During the workshop, the team explored three different scenarios that would be part of the simulation game:

- Exercise
- Hypoglycemia
- Site occlusion / DKA

The co-design activities focused on the scenarios in the game and how the game is delivered.



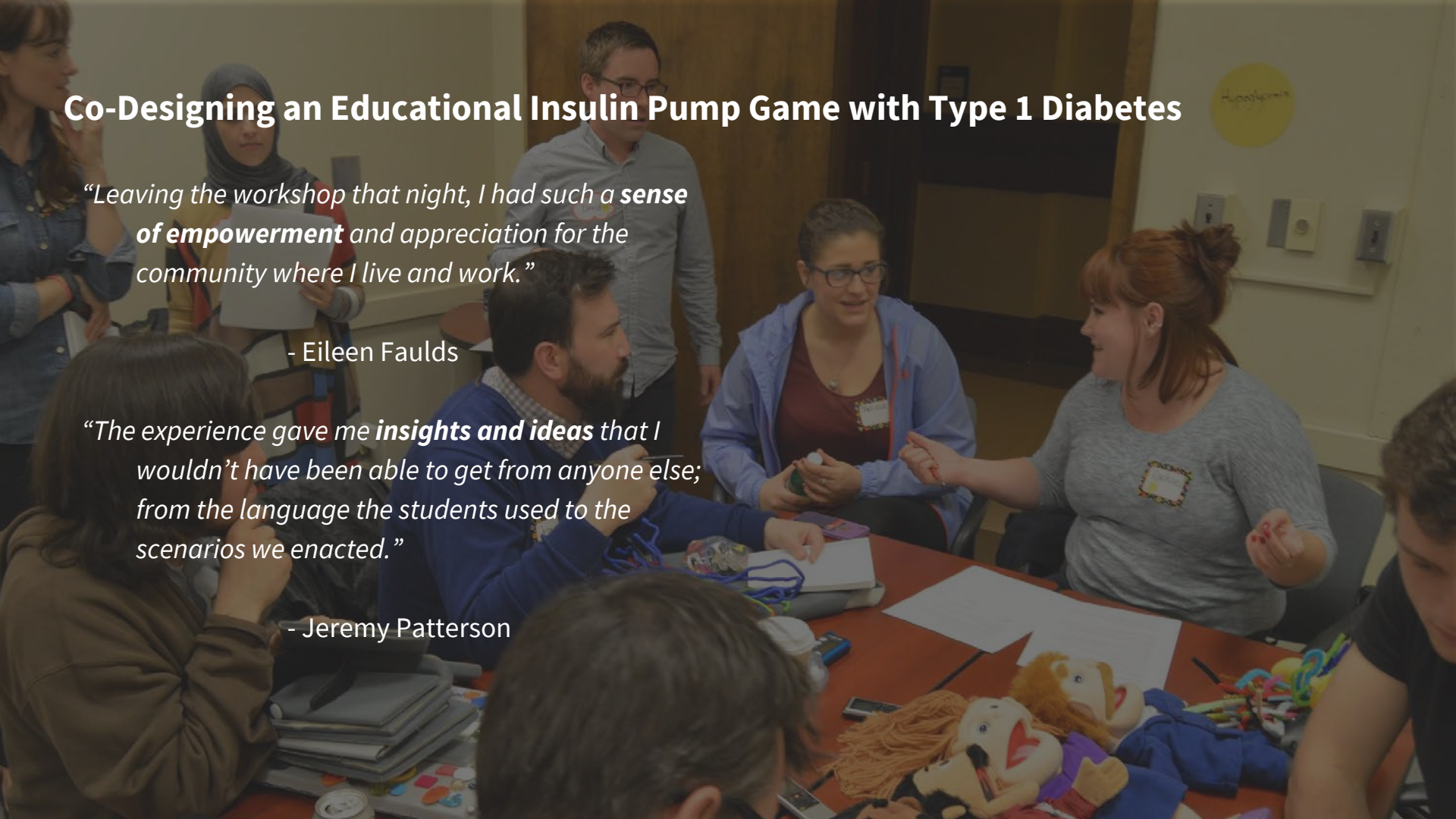
Co-Designing an Educational Insulin Pump Game with Type 1 Diabetes

*“Leaving the workshop that night, I had such a **sense of empowerment** and appreciation for the community where I live and work.”*

- Eileen Faulds

*“The experience gave me **insights and ideas** that I wouldn't have been able to get from anyone else; from the language the students used to the scenarios we enacted.”*

- Jeremy Patterson



Type 1 Diabetes Awareness in the Community



Envisioning the Future - Journey Map for a Type 1 Diabetic in Middle School

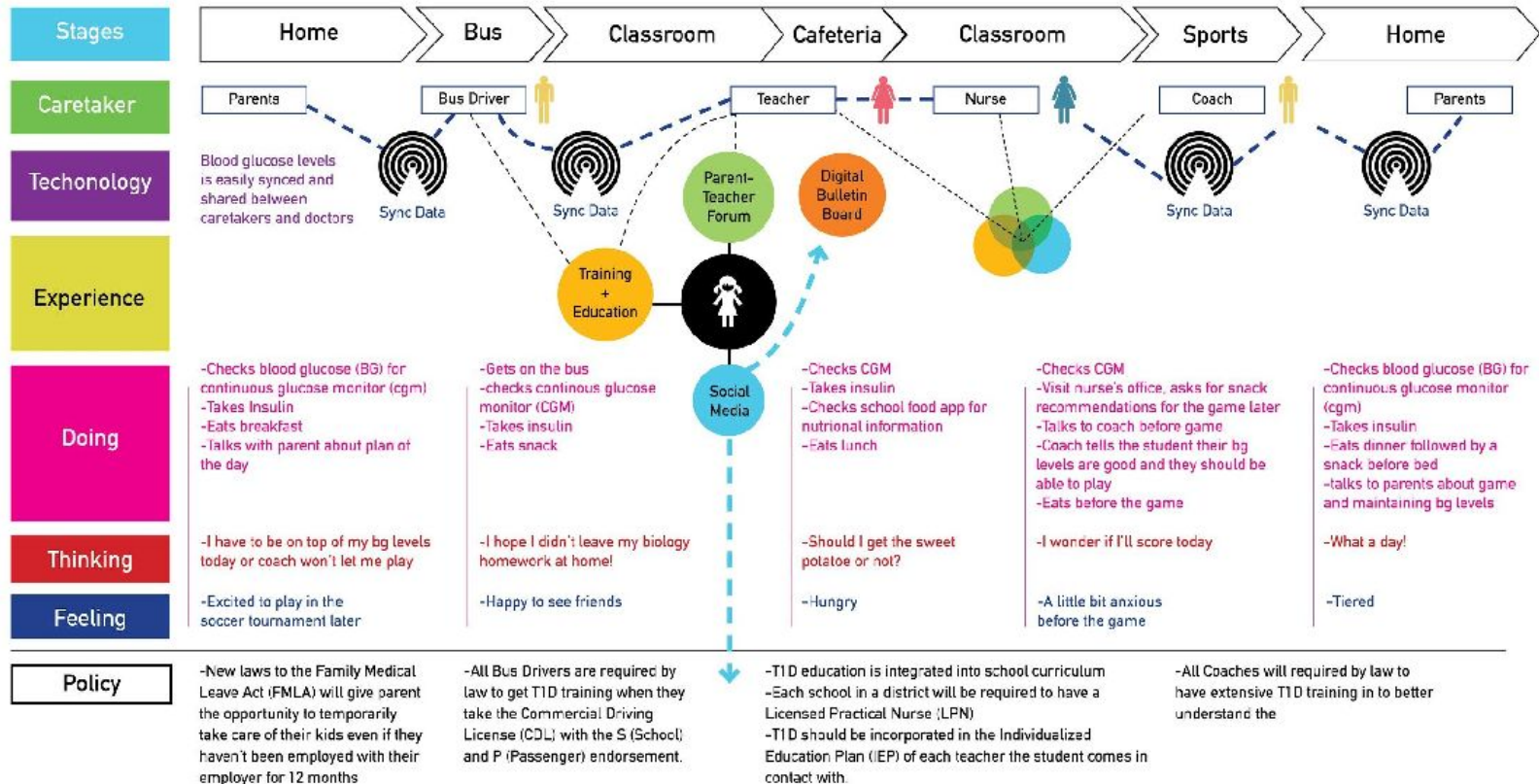
Guiding Principles

Foster and build a culture where the message could influence the environment and vice-versa

Create policies to improve the educational experience of T1D's

Continue to use technology as a tool to spread information and increase T1D literacy

Type One Diabetic Journey



Type 1 Diabetes and Outer Circle of Care

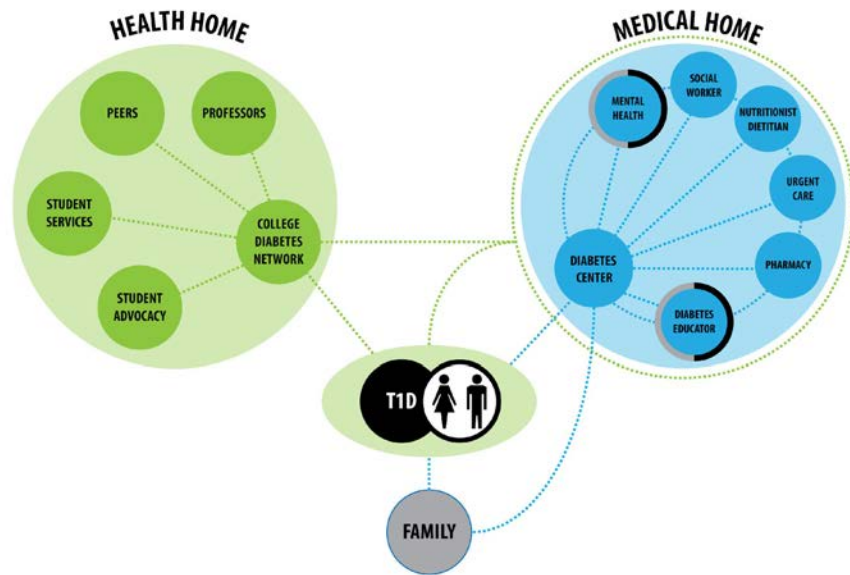
The co-design team explored the ideal healthcare system for three critical transitions for T1D patients:

Diagnosis, Going to College and Pregnancy

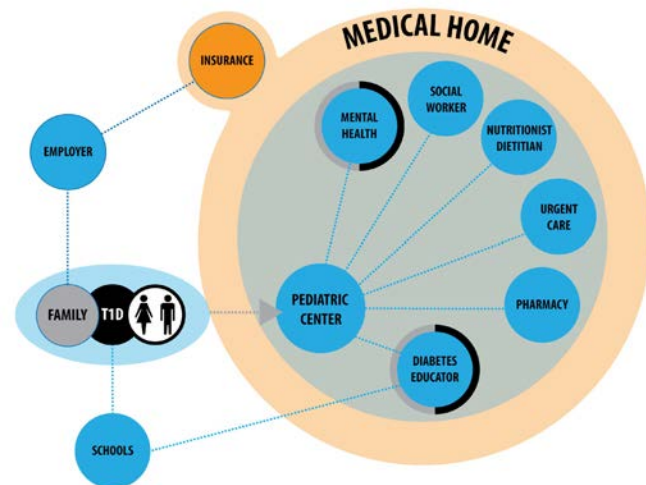


Type 1 Diabetes and Outer Circle of Care

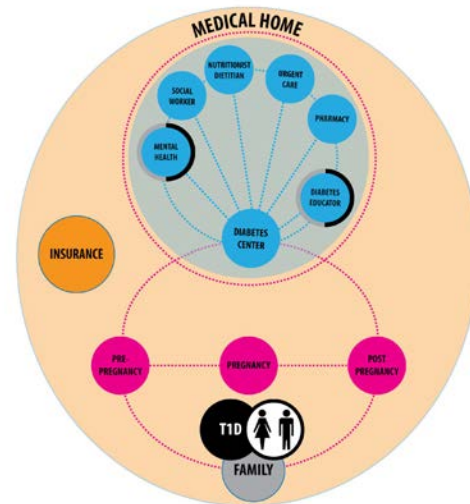
The co-design team identified the need for a Medical Home that connects the T1D patients to all the required resources



Going to College



Diagnosis



Pregnancy

Type 1 Diabetes and Healthcare Providers

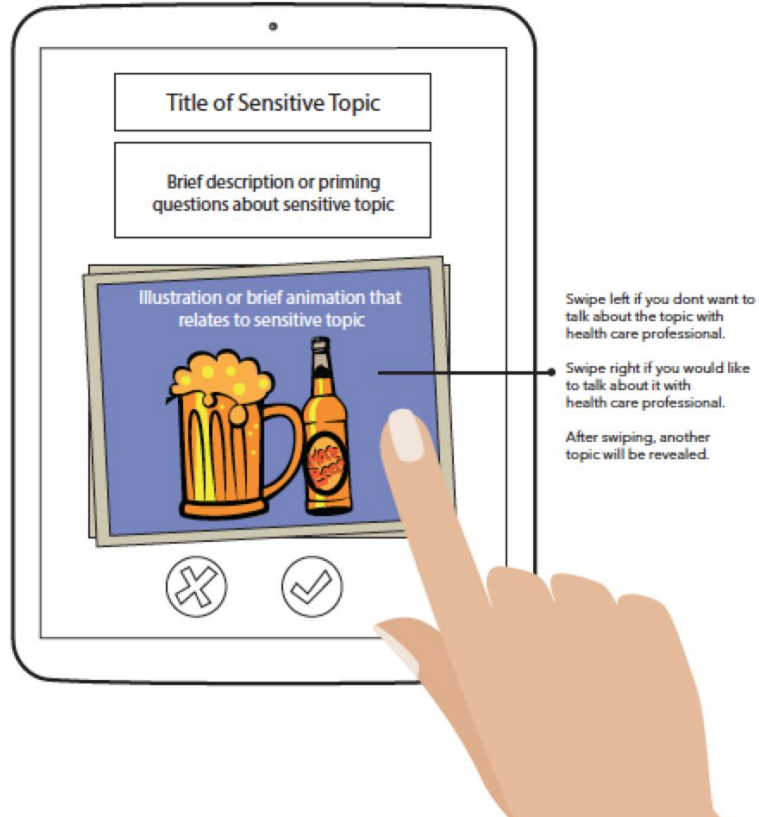


Next Steps

Tablet Device Diabetes Tinder for Sensitive Topics

Patients can use this application in the waiting room previous to meeting with a health care professional.

The health care professional gets notified of which topics the patient would like to address during their visit.



Next Steps & Future Possibilities

- Spring 2018 Co-Design Studio focused on the ICU
- Return to Ohio Living Westminster Thurber for Co-Design Studio 2019
- Developing products and services for implementation
- Future collaborations for other healthcare areas

Thank you!

Questions?

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